66

May 1928

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Drug Markets

The Magazine of the Manufacturing Drug Trade

Sun Tubes contribution of Ipana Troubadours at Atlantic City was greatly appreciated, but to us...., when they broadcast Sun Tubes, *the music is sweeter.*

Frank J. Lynch
Pres.

Especially for difficult-to products, test---

The NEW Porcelain Seal

Now you can have a beautiful, effective closure. One which so perfectly seals your bottle that neither leakage nor evaporation will ever trouble you again. *Now offered at a price not heretofore possible.*

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and other leading manufacturers in the United States and Canada.

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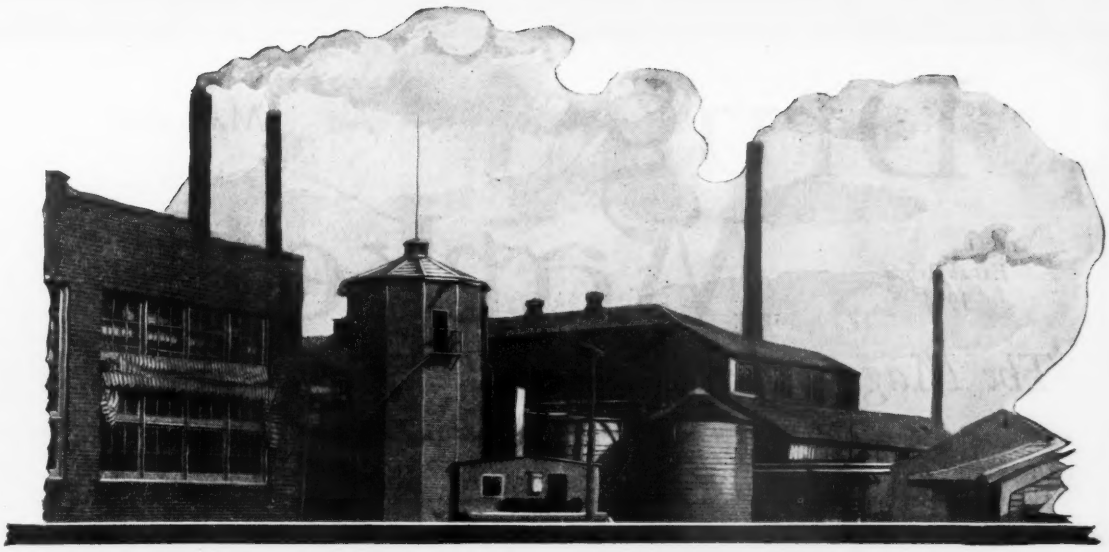

Pharmaceutical Chemicals

A Partial List of Dow Pharmaceutical Chemicals

- Bromine, Purified
- Minor Bromides
- Chloroform, U. S. P.
- Ferric Chloride, U. S. P. Solution or Crystals
- Magnesium Sulphate, U. S. P. (Epsom Salt)
- Phenol, U. S. P.
- Acetyl Salicylic Acid, U. S. P. Powder or Crystals
- Acetyl Salicylic Acid, Granulation, 10% Starch
- Methyl Salicylate, U. S. P. (Synthetic Wintergreen)
- Sodium Salicylate, U. S. P.
- Salicylic Acid, U. S. P.
- Minor Salicylates

THE importance of Dow basic products to the pharmaceutical industry is indicated somewhat by the list at the left. Regular Dow customers, of course, know of the Dow standards of purity in every pharmaceutical chemical that bears the Dow trade mark. They know that many of the highest U. S. P. standards have been set by Dow products. They know that the Dow policy means continuous improvement in color, cleanliness and form as well as in relative purity itself.

Choose any of the items listed. Let your purchase be the comparison. Let it decide whether or no the lifetime Dow customers have gained something by their continued purchase. You might also gain by choosing Dow as your major source of supply for the Pharmaceutical Chemicals listed.

DOW

THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN
Branch Sales Offices
90 West Street • New York City
Second and Madison Streets, Saint Louis

DOW **CHEMICALS**

May 1928

Drug Markets

Established 1914

The Magazine of the Manufacturing Drug Trade

Editorials 399

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The June Issue

Howard T. Graber, director, chemical laboratory, Digestive Ferments Company, and Chairman of the Committee on Pharmalogical Assays of the American Drug Manufacturers' Association, has contributed a splendid article on Endocrines. A real piece of work by a leading authority.

What Kind of a purchasing agent are you ? Interviews with leading sellers of raw materials to the drug and perfume manufacturers have told us what they consider the real type of P. A. Do you fill the requirements ? Or what specifications do you fail to meet ?

Packaging and Finishing will be discussed regularly in articles similar to the Norwich Pharmacal Company Unguentine article in this issue. Savings made possible by new machines, new types of packages will be proven by giving cost figures.

Mercury and Mercurials enter into ever so many products in the drug industry. Charles S. Wehrly, foremost authority on the market for mercury will tell what may be expected in mercury prices.

Speculative Raw Materials will be treated in the same manner as Ergot, Camphor, Geranium Oil, Orange Oil, and Citronella Oil have been treated.

VOL. XXII **DRUG MARKETS, INC.** NUMBER 5

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C.C.C

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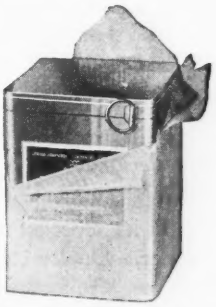
BENZOATE OF SODA
BENZOIC ACID

Merit

the purchaser recognizes



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Write for new literature

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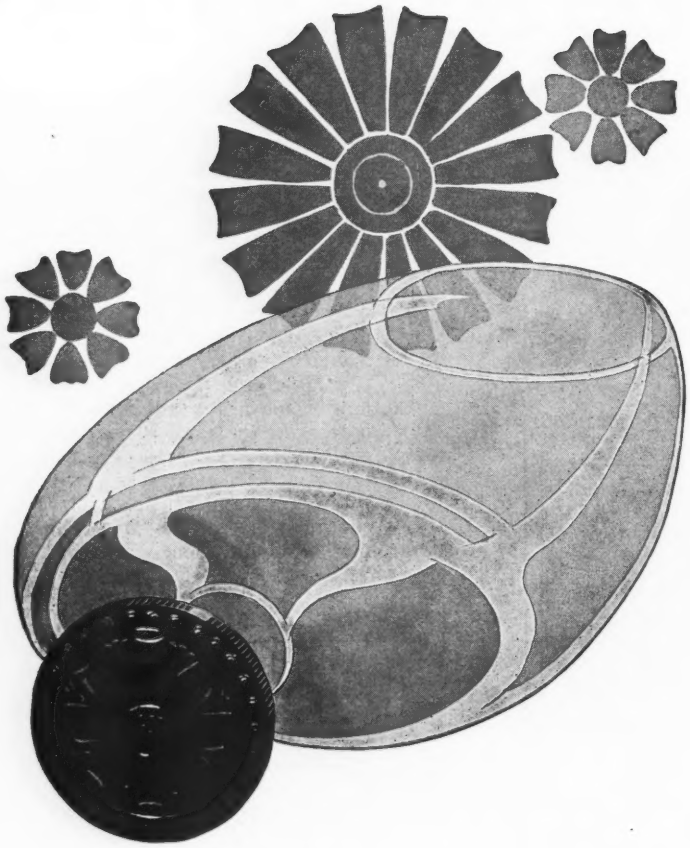

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SPECIALLY designed and beautifully colored to harmonize with your label or product, Armstrong's Embossed Top Corks will give real distinction to your packages. They will give them, too, dependably tight seals and convenient re-seals.

If you use closures in quantities of 10,000 or more, you will find that these attractive closures cost little more than most ordinary kinds. Try them on your packages. Samples and prices cheerfully furnished on request. Address Armstrong Cork Company, 132 Twenty-third Street, Pittsburgh, Pa.

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. . . so the customer is given assurance, the product is given a chance, and the drug clerk is selling a drug product . . . YOUR PRODUCT, *if it is sealed.*

. . . give your products this advantage. Seal them. Consider Capes-Viscose . . . inexpensive, attractive, self-fixing, hermetic . . . used by many drug manufacturers to sell

. . . the customer who wants to be sure.

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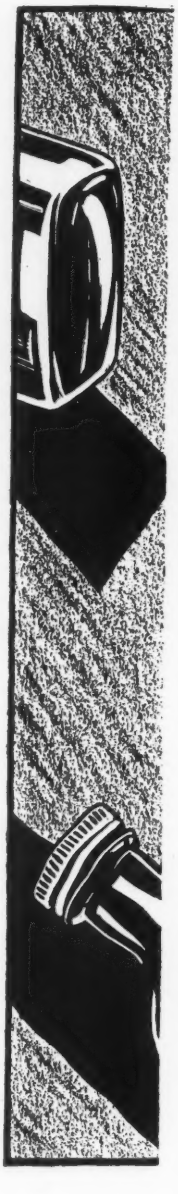

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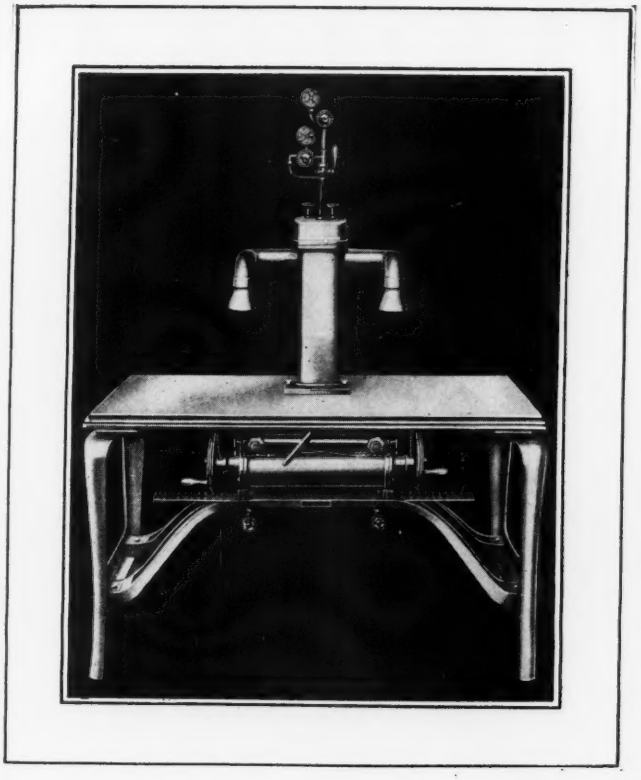

2. *Accurate Weighing and Filling Saves Labor*

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THE usual methods of weighing out and filling viscous materials, such as lard, grease, peanut butter, medicinal salves and creams, jam, mayonnaise, etc., into packages by hand are in vogue only because producers do not know the advantages of Fee Weighing and Filling Machines (Low Pressure Type).

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THE AMERSEAL CAP

REG. U.S. PAT. OFF.

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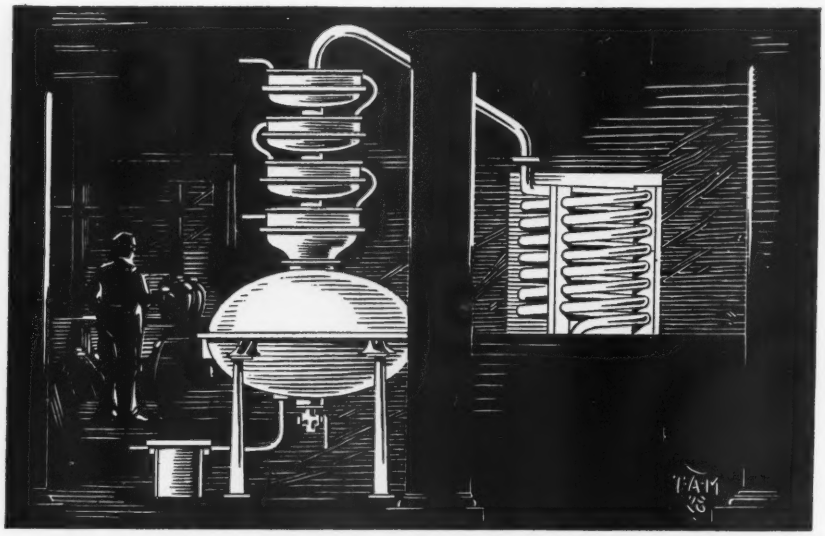

THE PARTING OF THE WAYS

In the development of any multi-purposed product, there comes a time when all purposes cannot be served with equal facility, or equal economy — a time when specific problems must be solved. Hence it was that the *Continuous Still* lent itself to development for large commercial plants, while the simpler operations remained where no such large quantities were involved.

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, , , ,

The enormous quantities of Alcohol of all formulae required by Industry demand equipment capable of producing Alcohol in great volume. The continuous type of Still is the one almost universally in use in America — and those employed by the Kentucky Alcohol Corporation represent the most modern and efficient in the Industry.

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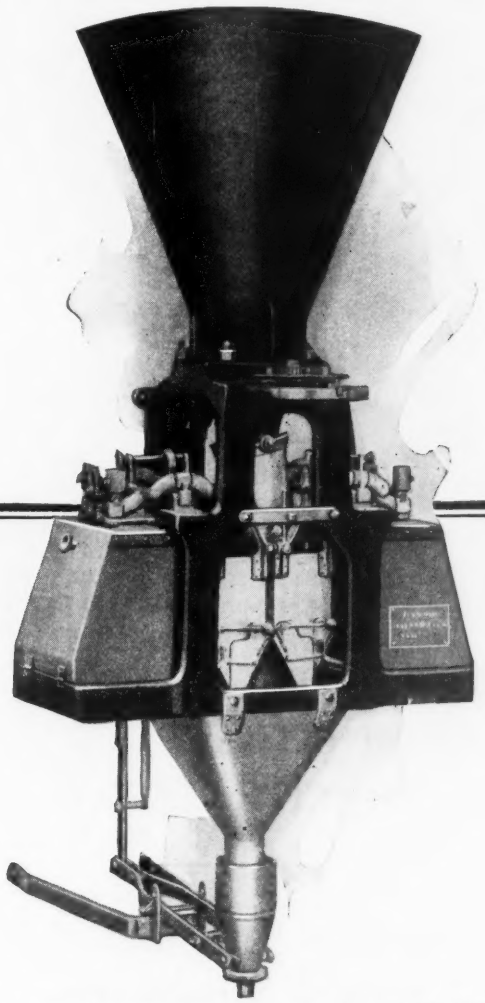
AUTOMATIC WEIGHING MACHINE DIVISION
American Machine & Foundry Co., 5502-5524 Second Ave., Brooklyn, N. Y.



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MALLINCKRODT CHEMICAL WORKS

SAINT LOUIS MONTREAL PHILADELPHIA NEW YORK

Drug Markets

Vol. XXII MAY 1928 No. 5

Problems in Common

BECAUSE it marks a move in an entirely new direction, the formation of a technical section within the Proprietary Association is full of meaning. An association representing such an important group of makers of packaged medicines cannot afford to be the least behind in technical knowledge, comments the President, Frank A. Blair, in giving his support to the movement. Thus the many technical men engaged with those large concerns who are members of the P. A., and who manufacture for themselves or others, will come together at least once a year and will cooperate in technical problems of proprietaries, not forgetting the importance of an efficient package.

ON the other hand we find the American Drug Manufacturers' Association taking a much keener interest in sales and advertising problems than formerly, and the session on these subjects marked the high spot of the recent meeting. In the past the two associations have mainly been coming together for information on totally different subjects, and while they did not ignore the foremost interests of each other, they have now come to appreciate that full knowledge of both subjects is vital to success.

THERE can be no doubt that one group of manufacturers has influenced the other. The effect of automatic machinery upon the pharmaceutical manufacturers has forced them into items that bring volume production. This volume production has forced direct to consumer advertising which had been so successfully conducted by the proprietary manufacturers. Likewise the high technical knowledge gained by the pharmaceutical manufacturers, finding its way into the advertisements of these manufacturers has caused proprietary manufacturers to take full account of themselves on this increasingly important phase of the drug business.

WHILE, as Mr. Blair states, members of the Proprietary Association are manufacturers of specialties and would not be interested in such work as has done by the contact committees of other associations, there is on this technical committee at least one representative of a Proprietary Association member which makes quite a full line of products not falling within the proprietary classification. There are other members of this same association whose main products are made by members of the A.D.M.A.

THE effect of these trends upon the entire drug industries, can be naught but good. Technical research and steady improvement in proprietary medicines will continue to advance them in the light of public confidence which is necessary for that much sought after "consumer acceptance." Direct to consumer advertising by the more ethical manufacturers will increase consumption of all drug products.

Good-Will

Values of good-will as carried on the books of many of the large drug specialty manufacturers recently published in the "Wall Street Journal" indicate the change in the balance sheet caused by heavy expenditures for advertising and for promotion of trade marks. "Lambert, Lehn & Fink, Coty, Household Products and others annually make large expenditures for advertising," states the article, "When these companies plough back earnings, it does not go into plants and property, for eight of the companies considered, only one plant is carried at more than a million dollars, although earnings of all but one company are more than that amount."

The carrying of good-will at a high figure in a balance sheet is lovely in times of good business. When earnings increase and stock speculation is rampant, the value of a stock rises far above its book value. There are many good reasons from a financial viewpoint why the book value and selling price of a stock should not be too far apart. Consequently the splitting of stocks into many parts is indulged in, and this very attractive item of good-will is written on the balance sheet at an increased figure.

When competition from new sources becomes keen, the good-will item must be backed by more than heavy advertising expenditures. Greater merit to a product than is found in competitive ones will win in a race if other factors remain the same. Ability to advertise and merchandise is only one phase of the drug business, and without research and plant efficiency this highly priced good-will will quickly vanish into nothingness.

Toilet Goods and Research

In the light of threatening anti-cosmetic legislation, invasion of one industry by one closely allied, and the competition between industries, the absolute lack of interest in, and the utter disregard for, the work of the research committee of the American Manufacturers of Toilet Articles on the part of the membership of that organization, is, to say the least, appalling. Only a few replies to over two hundred letters sent out by Dr. Bogart asking for subjects of interest to members, and these few limiting their vision to checks on the purity of raw materials, does not offer the committee much encouragement.

Doubtless many large perfume and cosmetics manufacturers have their own staff of chemists. They may, perhaps, feel that they do not need the assistance of the association committee. But there is so much work to be done that an exchange of views is imperative. It may be that some manufacturers think of nothing else than pure raw materials at the cheapest price, and checks on the purity would be all that they think they require. In the same way they have come to depend on the compound houses for their odors—since these concerns can afford to pay a skilled blender much higher salaries—they are passing all their problems on to someone else.

How many of them know, for example, what colors should be used in cosmetics? How many of them—with a technical staff boasting of nothing more than a registered pharmacist—buy the cheapest lake that is offered them to get the desired shade? What do the most of them really know about the effect of various products on the skin? Then how can they expect to offer a united front, backed by any real knowledge if the anti-cosmetic legislation is more actively pushed?

What a contrast this group offers to the American Drug Manufacturers' Association which just spent a day and a half of their meeting time to discuss technical problems. And what a contrast to the Proprietary Association which has formed a real active technical section. Perfume and cosmetic manufacturers should take warning from the large number of drug manufacturers who are becoming actively engaged in the toilet goods field. With their large experienced technical staffs, these new entrants will not be long in solving problems that will place them far ahead of many of the specialty houses that are neglecting this research.

What a Manufacturer Knows

A sudden realization that the suppliers of raw materials are very necessary to the conduct of any business comes to a manufacturer only in times of shortage or exceptionally high prices. And when a market reaches record prices with the buyers partially or totally uncovered, criticism of the sellers is generally indulged in. A like realization on the part of buyers of the causes of such conditions would be highly commendable, since in many cases it would tend to show that the buyers themselves are equally, if not more, responsible for their failure to secure supplies at reasonable prices, than are the sellers.

Unfortunately for the regular suppliers of the citrus oils, prices have advanced sharply

in a statistically strong market aggravated by speculation. The strong position of the market has been indicated by sellers for the past two months at least. The majority of them have urged buyers to cover requirements in order to save money for the buyers as well as to prevent embarrassment to themselves. But the buyers for the most part went happily on their way buying only as they needed with the soothing thought that the days of speculation and high prices had gone with the war.

Hand-to-mouth buying has done much to stabilize business conditions. It has freed manufacturers from heavy inventories and has made them more free to meet changing conditions. But in buying in this manner there are certain responsibilities of the seller that must be assumed by the buyer.

Any manufacturer knows that when the retailers buy in a small way, the wholesaler refuses to carry stocks and also buys in like manner. This forces the manufacturer to carry the stocks that should be carried by the wholesaler. The manufacturer does not like it, but still it must be done to sell the goods which are the life of his business. If prices vary it is wholly up to him, so he does not take the risk that the wholesaler would take by carrying the stocks.

But the supplier of natural raw materials cannot carry stocks without great risk. These markets are constantly fluctuating from causes over which he has no control. The best the supplier can do is to pass such information as he receives on to the buyer. If the buyer does not want to chance a future purchase, the seller cannot be expected to take the risk.

Why One Price?

Placing blame, or "passing the buck," is generally an easy task if sufficient time is given to its consideration, and at a recent meeting of the American Grocery Specialty Manufacturers' Association, the price-cutting evil was quite ably placed on the door-step of both the manufacturer and the wholesaler depending upon who gave the reasons. It is surprising that no one conclusively proved that the blame belonged to the retailer, or most certainly to the chain store. There are enough differences of merchandising methods employed in various retail stores and in different chains to prove the point.

But passing the blame to some one else, guilty as he may be, and then leaving the problem for him to work out, never brought results to the one who relieved himself of the blame. If, as has been stated, nationally advertised goods have no price, there is necessary a combination of effort to standardize the price. While the manufacturer can refuse to sell, and go no further, it is certainly expecting extreme co-operation on his part for him to be responsible for the actions of all the wholesalers and retailers throughout the country into whose hands his goods might fall.

Responsibility for price variation on any product belongs to those who are, or think they are, gaining by cutting the price. Thus the specialty wholesalers, the cut-rate stores who bait their customers, the manufacturers who engage in uncalled for favoritism, must all be taught that it to their advantage to change their ways—if this can be proven.

In the final analysis, manufactured products are the property of the manufacturer who has only one object in view—to sell as much of his goods as he can. Any policies adopted on price maintenance must in the long run move the most goods. If some manufacturers choose to grant concessions to large units, that is their affair. That many manufacturers are strongly in favor of price maintenance legislation simply indicates that these makers think they can sell more goods with a set price.

Moving Ahead

Distinct progress is shown in the report of the sub-committee of the U. S. P. X vitamin A assay of cod liver oil to the Scientific Section of the A. D. M. A., in which the changing of the specifications of the oil so that it must contain 250 units of vitamin A per gram, instead of 50 units, is recommended. While the committee realizes that a still higher standard might be set for cod liver oil, it is felt by the committee that since the standard may be applied to other cod liver products, 250 units is sufficiently high for general application. It was also expressed privately that at some future date, this figure might be raised.

Improving the standards of drug products is one of the finest ways of improving the demand for drug products. The fact, that certain concerns have been taking advantage of the low standard of the U. S. P. in comparing the vitamin A content of their oil, could do nothing but lower the efficacy of such oil and work to the detriment of the reputation of cod liver oil, and constantly of the drug manufacturing industry as a whole.

Wasted or Not?

Of the avenues of publicity open to manufacturers of both the "ethical" and publicly advertised products, the retail drug papers and medical journals offer a "tie-up," the value of which must be appreciated by those manufacturers who give the matter serious thought. There is the usual complaint on the part of manufacturers that such advertising is very largely wasted money in the belief that no one reads these papers.

At the meeting of the American Drug Manufacturers' Association, R. D. Keim, of E. R. Squibb & Sons, criticised these papers in a rather sharp manner, constructive as Mr. Keim believed his criticism to be. Like many other men in different businesses, Mr. Keim would dictate to the retail papers just what should go into the editorial columns to make the papers more widely read, and of greater value from an advertising standpoint.

What subscribers of a paper like to read is the continual problem of the editor. His work consists of determining just this. He must of necessity publish articles in the more serious vein in order that the readers of a more serious turn of mind can find something of interest. But he must publish the material that the majority of his readers want, whether it appeals directly to his advertisers or not.

As so ably told by Harry C. Phibbs at the same meeting, all these papers have to offer for sale is "white space." It is up to the buyer of the space to make it produce after the publisher has placed it before prospects. The slight consideration that most manufacturers give to trade paper advertising copy, tells the greater part the reason for the poor results obtained by some of these advertisers. The statement by Mr. Phibbs that in an actual test to prove the cost per inquiry of trade papers compared with other mediums, the trade paper showed the lowest cost, should be conclusive evidence that the money spent on trade paper advertising is far from wasted.

Regulating Chains

Efforts of independent retailers to curb the expansion of chain store merchandising received a severe setback in a Maryland Court when Judge Daub granted a permanent injunction restraining enforcement of the law imposing a tax on chain store systems containing six stores or more. But while the decision itself is important, the remarks of the Judge in rendering his decision point the way the judicial mind is leaning in cases such as this.

"It is not shown why the interest of the public, as distinguished from a particular class, requires that chain stores be regulated," remarked the Judge, who says further, "Looking at the community as a whole, the chain stores, by purchasing direct from the manufacturer and eliminating the expenses of the wholesaler, jobber, and broker, and the cost of delivery, and selling for cash and thereby escaping the usual losses resulting from sales on credit, are more likely to give the farmer, truckman and consumer part of the middleman's profit and so become a blessing to society and the public generally."

It is the recognition of the economic savings that the chains effect that will bring such remarks as these. It is futile for independent retailers to think that they can by law destroy any institution that reacts to the benefit of public as a whole. Independent retailers will continue to exist as will wholesalers, but neither will progress unless they find ways and means of giving the same things that the chain store give at the same price, or else give more when they ask a higher price.

Ten Years Ago

(From our pages May 1918)

The Netherlands Government announces an embargo against the exportation of quinine, quinine salts, cinchona bark, tin, tin ores and kapok from the Dutch East Indies.

Perfenol Products Co., synthetic perfumes, Elizabeth, N. J., increases capital from $50,000 to $100,000.

Louis K. Liggett Co. moves offices to 151 Fifth ave., New York.

Thomas Laboratories is incorporated in Manhattan with capital of $50,000 to manufacture drugs and toilet supplies. V. B. Thomas, W. H. Stout and E. Sefton are named as incorporators.

Federal Trade Commission issues licenses to following firms to manufacture drugs under enemy patents: Antoine Chiris Co., New York, to manufacture barbital; Calco Chemical Co., Bound Brook, N. J., to manufacture procaine; and the Diarsenol Chemical Co., Buffalo, to manufacture arsphenamine.

Mallinckrodt Chemical Co., gives banquet to Henry W. W. Huning to celebrate his fiftieth anniversary with that company.

Proprietary Association of America holds thirty-sixth annual meeting in New York and re-elects Frank A. Blair, of Foley & Co., Chicago, as president by a unanimous ballot.

Johnson & Johnson, New Brunswick, N. J., plans construction of new building to cost about $10,000.

Powers-Weightman-Rosengarten, Co. Philadelphia, plans erection of new one-story addition to its plant in that city.

War Service Committee of American Drug Manufacturers' Association is now composed of Williard Ohliger, Chairman, Frederick Stearns & Co., Detroit; F. G. Ryan, secretary, Parke, Davis & Co., Detroit; Donald McKesson, New York Quinine & Chemical Co., New York; Frederick Rosengarten, Powers, Weightman, Rosengarten Co., Philadelphia; W. A. Sailer, Sharp & Dohme, Baltimore; Burton T. Bush, Antoine Chiris & Co., New York; Dr. H. C. Lovis, Seabury & Johnson, New York; Milton Campbell, H. K. Mulford Co., Philadelphia; and Dr. W. C. Abbott Laboratories, Chicago, Ill.

Patent or Trade-Mark?

Three methods of protecting a product from imitation are open to the manufacturer. Mr. Langner points out the limitations of each method and why they are liable to fail if not properly employed. He also advises how two of the methods may sometimes be used in combination with each other.

By Lawrence Langner

THE manufacturer who is introducing a newly invented pharmaceutical preparation and wishes to secure maximum protection against the copying of this preparation by others, can adopt one or more of the following modes of procedure: (a) He can rely upon patent protection, which is secured by filing an application covering the invention at the Patent Office in Washington, which, if issued to patent, will grant a monopoly to "make, use and sell" the invention for a period of seventeen years from the date of issue of the patent; (b) he can coin a trade-mark for the composition, by which trade-mark the article will be made known to the public through advertising and other publicity methods, and he can rely upon the trade-mark laws in case he protects his trade-mark by registration at Washington, and also upon the laws of unfair competition, to prevent others from selling the same preparation or a similar preparation under a trade-mark which is so close as to be calculated to mislead or deceive, and (c) he can decide to keep the method of making the preparation secret. This procedure, however, is only to be recommended in a case where the preparation is of such a nature that its method of preparation cannot possibly be arrived at by analysis.

It is the intention of this article to deal in a general way with the three forms of protection, with a view to determining which form of protection is the most valuable from the standpoint of the drug manufacturer.

We can dismiss without very much consideration the "secret process" method of protecting a new preparation. The difficulty of keeping any process which is used on a large scale a secret under present-day manufacturing conditions indicates at once that this method is to be used only under most unusual circumstances. It was possible in bygone days, when businesses were conducted by individuals on a small scale, and when chemical analysis was not so highly developed, for such individuals to keep the nature of their manufacturing processes and products secret from the rest of the world over long periods of time, and there are undoubtedly many preparations to-day which are manufactured under elaborate conditions of secrecy. It is safe, however, to assume in the case of the majority of these that, if a determined effort were made to discover the secret, it would soon be forthcoming. Such efforts are not made, however, as a general rule, because manufacturers generally recognize that the good-will in the product does not lie so much in the product itself as in the reputation which it has gained under a particular trade-mark. It will, therefore, be appreciated that, on the one hand, the method of keeping the manufacture secret does not recommend itself under modern conditions, and, on the other hand, that such good-will as the product possesses is usually represented not by its secret, but by its trade-mark.

This leaves for the most serious consideration the other two methods of protection; that is, by way of patents or by way of trade-marks.

The advantages of patent protection reside in the exclusive right granted by the patent to make, use and sell the actual preparation itself, the patent monopoly preventing others from manufacturing the goods for a period of seventeen years. The dis-

advantages of patent protection lie in (a) the relative shortness of the monopoly from the standpoint of established business; (b) the fact that a full disclosure of the preparation, and the preferred method of manufacturing the same, is required and is published to the world, and (c) patent litigation is a relatively expensive matter, and the patent monopoly may be endangered or lost by a successful attack upon the validity of the patent.

Trade-Marks Alone

The value of trade-mark protection, when this protection is relied upon without patent protection, in the case of a coined name for the pharmaceutical product is as follows: (a) There is no limit to the monopoly in the trade-mark name of the preparation at Common Law. In the case of a registered trade-mark, this can be renewed indefinitely at recurrent periods of fourteen years, so that so far as the name of a preparation is concerned, it can be continued indefinitely as long as it identifies the origin of the goods. Where the owner of the trade-mark is vigilant in protecting his trade-mark rights, he can maintain a virtual monopoly as far as imitators of the name of his product are concerned, and by consistent advertising extending over a long period of years, he can build up his trade-mark to such an extent that the public almost invariably uses this trade-mark in calling for the goods, and (b) the trade-mark right presents an advantage over the patent monopoly, not only as to the term of the exclusive right, but also as regards the comparative litigative methods necessary to protect the trade-mark as compared with the methods necessary to protect the patent. Trade-mark suits are, as a rule, considerably less complicated than patent suits; they do not require the services of technical experts, and it is seldom in a trade-mark suit that the party bringing the suit completely loses his trade -mark rights, as is so often the case where a party brings a patent suit. In other words, it is comparatively rare for a trade-mark right to become invalid as compared with a patent right, which makes the trade-mark protection a more certain form of protection. In considering this matter, it must be remembered that care must be exercised by the trade-mark owner to use his trade-mark in such a way as to preserve his exclusive rights therein. This not only involves his vigilance against the use of the trade-mark by others, and especially in a descriptive sense, but it also involves his own use of the trade-mark in a trade-mark sense. In this connection, it is generally advisable to select the form of wording for the labels which display the trade-mark in such a manner that the mark is used properly in a trade-mark sense.

It is not to be assumed from the above comparison of patent protection and trade-mark protection in regard to pharmaceutical preparations that there is any reason why parallel protection should not be

(*Continued on page 466*)

Rose Crop Not Damaged

Despite the fact that reports in the daily papers have stated that the recent earthquakes in Bulgaria "have changed the Valley of Roses to a desert of sands", importers here state that advices from Bulgaria have not confirmed these statements and that the earthquakes have not resulted in any damage to the rose crop. They foresee no reason why supplies of ottar of rose should not be normal and prices continue at approximately present prices.

Bulgarian Ministry of Agriculture estimates that for the current year 4,900 nectares (1 hectare equals 2.47 acres) were planted in roses with an expected yield of approximately 53,610 ounces of rose oil, according to Vice Consul S. Green, at Sofia. Although the

Gathering Rose Flowers near the highest point of the Balkans, called Mount Ferdinand.

figures given show a decrease from plantings and production of last year, which amounted to 5,142 hectares and approximately 88,775 ounces, it is thought that the final result for 1928 may show only a slight falling off.

Shortly after the close of the World War some of the rose growers replanted their fields with other crops, especially tobacco. In 1924, however, the native farmers began to resume rose-growing and since that time the acreage planted has increased. The following table shows the acreage planted and the production over a period of several years. The poor yield of less than 50,000 ounces in 1926 was due to a bad harvest.

Year	*Acreage*	*Production*	*Year*	*Acreage*	*Production*
	Hectares	*Ounces*		*Hectares*	*Ounces*
1911	7,665	115,058	1924	4,727	65,632
1920	6,357	59,937	1926	4,901	49,781
1923	4,561	49,720	1927	5,142	88,775

According to consular records the following table shows the amount and value of Bulgarian rose oil exported to the United States during the years 1920 to 1927. The quantities are given in ounces.

1920	1921	1922	1923	1924	1925	1926	1927
22,390	10,593	46,947	42,793	27,630	13,049	21,878	10,636

These figures show larger exportations of rose oil to the United States than Bulgarian statistics indicate,

probably because many shipments went by way of France or some other country and were consequently considered by Bulgarian Customs as exports to those countries.

The following table shows the quantity and destination of Bulgarian rose oil exported during the years 1923, 1924, 1925, and 1926, according to the Direction General of Statistics at Sofia.

	1923	1924	1925	1926
Countries	*Kilos*	*Kilos*	*Kilos*	*Kilos*
Great Britain,	236	68	156	198
Germany,	146	308	138	311
United States,	1,106	623	415	569
France,	1,497	2,485	1,183	1,390
Switzerland,	103	74	169	584
Others,	92	59	114	22
Total.....	3,180	3,617	2,169	3,065

Adverse Vanilla Weather

Veracruz, Mexico. Dry weather during April may mean a short crop of vanilla for 1928-29, should the drought continue for any length of time, as the flowers will dry up and fall off. In February rains were plentiful, in March, very slight and during April there has been none. Usually rains commence in March and continue through the flowering season. If weather conditions change shortly and bring rain indications are that the flowering will be good. During April there has been extremely hot weather in all the vanilla district.

All vanilla beans of 1927-28 the crops are all in the hands of the curers. Only "cuts" have been exported from this crop.

Prices in Papantla are $2.50 per pound for the "whole" beans and $1.80 to $1.85 for "Cuts". Some curers are asking $2.00 per pound for cuts and one large dealer is holding his whole beans at $2.60 per pound. It is estimated that it costs about 25 cents per pound, transportation charges and State tax, to place vanilla in Veracruz. There is very little interest being taken in vanilla, buying is limited to just what is needed. The estimated holdover crop is 40,000 to 45,000 pounds.

Locating Leaks With Peppermint

Oil of peppermint has found a new use according to M. S. Fitzwilliam, Chief Engineer Arsenal Hill Station, Southwestern Gas & Electric Co., who writes to "Power" telling of the application of peppermint oil to the locating of leaks in a vacuum system. After telling of the objections to the use of candles and to the water pressure method, Mr. Fitzwilliam tells of wrapping a peppermint oil saturated cloth around the joint to be tested. The odor quickly passes through the system and may be detected almost instantly by an assistant stationed at or near the atmospheric discharge of the air removal apparatus. The fumes are removed from the system in a few minutes between each test. The method is inexpensive and may be applied quickly with reliable results without placing the system out of service.

Ritchie Buys Enos Fruit Salts

This is the statement as given by Mr. Ritchie to our photographer on the arrival of the Mauretania to-day: The statement is dated April 25, 1928.

"The ownership of the firm of J. C. Eno, Limited, of London, England, makers of Eno's "Fruit Salt" changed hands last week.

Harold F. Ritchie

"All the preferred and ordinary shares were purchased by Mr. Harold F. Ritchie, of Toronto and New York. The sale to Mr. Ritchie took place on the celebration of Mr. Eno's birthday. Mr. Eno was born in 1828. One hundred years later, the business changed hands. The firm is also celebrating their diamond jubilee this year, as this is their sixtieth year in business, selling Eno's "Fruit Salt" in every civilized country in the world.

"This is Mr. Ritchie's twenty-first year with the firm as sales representative, having started in Canada. He now handles "Fruit Salt" and many other lines of proprietaries in Canada and Newfoundland, United States, Mexico, Central America, South America, the West Indies, Australia, New Zealand, Hawaiian Islands, Philippine Islands, Pacific Islands and China, all through the Ritchie sales organizaiton.

"There will not be any change in the management of J. C. Eno Ltd. The Board of Directors will remain and continue the progressive policy which has given this fine old company the greatest proprietary business in existence.

"The sale was brought about for family reasons, after the death of Commander Harold W. Swithenbank, who was a son-in-law of Mr. Eno, and also one of the trustees and executors of Mr. Eno's will and estate.

"Mr. Ritchie was given every consideration due to his long years of service to the company, and when his business was to be sold, he received notice and first chance.

"Mr. Ritchie states that factories will be opened in several countries, first in the United States and Australia.

"The deal involved a very large sum—in fact it is one of the largest transactions ever recorded in the proprietary field. The sum approximates $10,000,000."

Loading a vessel with citronella oil and other exports at Batavia, Java

A Change in the Citronella Market

Ceylon citronella oil is now selling above the Java oil instead of below it. Higher geranium oil should increase demand for geraniol made from Java citronella. Will the Ceylon oil continue to advance above the Java or will both grades advance?

ON many occasions during the past few years, the large number of dealers operating in citronella oil have thought the price of this product was below the actual value of the oil, and that an advance was imminent. But no matter what information they received from the source and passed on to their consumers the price stayed just where it had been, and, while the consumers did not lose any great amount of money by buying the oil, they did feel that they had been incorrectly advised and that there is no reason for buying heavily of citronella at any time.

The dealers themselves have become skeptical of forecasting any advance in citronella. They hesitate to advise their customers to buy, and, most of all they hesitate to buy any futures in the oil. But strange to say, Ceylon citronella has had a definite gain in price during the past month or more, and the market has taken on a different complexion.

First of all, let us discuss the two grades of citronella oil—the Ceylon and the Java. The two products generally find totally different uses. The Ceylon, which is generally the cheaper, finds its principal use in cheap laundry soaps, as well as in insect repellents. The Java, which has a more rosy odor, finds its use in the more expensive soaps as well as in some perfumes. But a very large quantity of Java citronella oil is used for the production of geraniol. The Java oil is pre-

ferred for this purpose, as it is higher in geraniol content.

For the reason that geraniol is made from Java citronella oil, and also for the reason that both geranium oil and citronella oil, are of the rose type, there exists somewhat of a relationship between the two. That is, other factors remaining the same, a change in price of one of the oils will have an influence on the other. In the present situation, the higher prices now in effect on geranium oil are expected to influence the market for citronella.

In the first place Bourbon geranium oil has advanced from its low point of $2.70 per pound a few months back, to a present market of $4.00 per pound and higher. In doing this it has passed the African oil in price, although the African oil always had sold higher than the Bourbon. The African now stands approximately 40c per pound below the Bourbon, while formerly it stood from 50c to $4.00 per pound above it.

The higher prices for oil geranium will cause a greater demand for geraniol. And a greater demand for geraniol will cause a greater demand for Java citronella. But contrary to what would be expected under such conditions, the Java oil has not advanced, but the Ceylon has. The greater demand for geraniol as a result of the higher geranium market, has not as yet been reflected in the Java citronella oil. As a matter of fact, the differential between the two citronella oils, which is normally 10c per pound in favor of Java oil, is now changed to about 5c per pound in favor of Ceylon oil, an extraordinary state of affairs. Thus we have found in citronella oil, a duplication of the recent conditions in geranium oil—that is, a reversal of the two grades of oil from point of value. But arrival of such a state of conditions is not the result of the influence of the oil geranium prices on the citronella market, but rather in spite of it. The real strength of Ceylon prices causing the recent advance in price seems to be one of supply and demand.

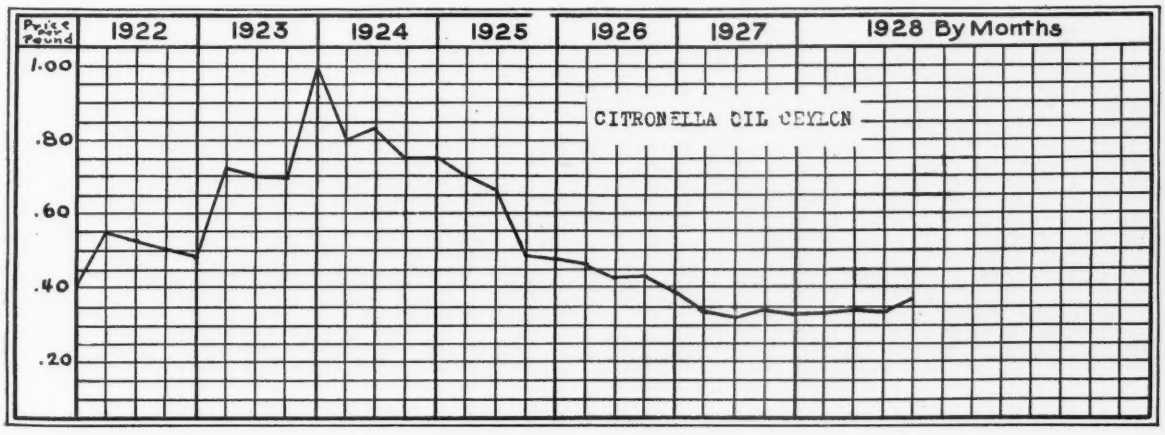
Figures recently sent to this country by Trade Commissioner C. B. Spofford, Jr., at Calcutta, India, give the following export figures for exports of Ceylon citronella oil:

	1926 Pounds	1927 Pounds
United Kingdom,	431,866	297,255
France,	50,765	24,203
Germany,	126,398	129,630
Netherlands,	47,597	67,579
Italy,	24,144	12,057
Australia and New Zealand,	83,287	71,314
United States,	575,560	603,420
Canada,	.....	15,583
Other countries in America,	3,342	28,265
India,	36,422	46,373
China,	34,427	37,267
Other countries,	31,374	38,898
Total,	1,445,182	1,371,844

It will be noted from these figures, that although the total exports from Ceylon declined approximately 73,000 pounds, the exports to this country increased by approximately 28,000 pounds. Also other countries on this side of the world increased their imports from about 3,000 pounds to 28,000 pounds—a stupendous increase. Furthermore, Germany, the Netherlands, India and China increased their imports. The United Kingdom, France and Australia fell down heavily. The drop in the imports into the United Kingdom and France may be due to the fact that more oil passed directly from primary sources to this country instead of going through a third hand.

In giving these figures, the Trade Commissioner says: "The price of Ceylon oil is largely influenced by the Java market, which suffered from excessive production in 1927."

Unfortunately import figures for citronella oil are not available in this country as the Government reports citronella oil and lemongrass oil together. There is no apparent reason for this other than the two products come from the same part of the world, and the Government has always reported them together. *(Continued on page 468)*



During the past month or more Ceylon citronella oil has shown the first upward turn in a long time. Citronella oil has never shown any real recovery from the steady decline which reached bottom in 1927.

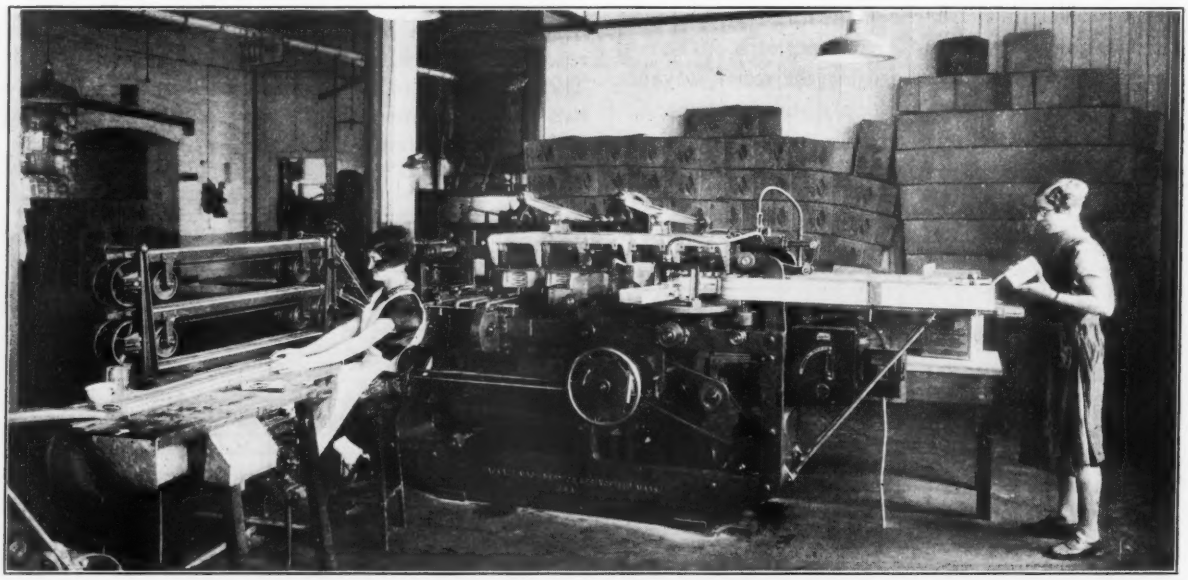
Dozen display cartons give way to bundling in

Packing Unguentine

A saving of close to $5,000 per year with still greater savings in sight would cause any manufacturer to seriously consider the curbing of needless expense in the form of display cartons which are seldom used. The only investment necessary to effect the change was in a machine which will return its cost in 15 months although operating only one-tenth of its capacity.

PRODUCTS that move in large volume are naturally most adaptable to economies that, although small on an individual unit, yield an appreciable saving throughout the course of a year's time. Manufacturers know that the use of attractive packages add greatly to consumer acceptance of a product, and for a long time they have also felt that the use of a display dozen carton had much the same effect. These attractive display dozen cartons are useful when a retailer displays the goods in the carton on his counter, but how many such products can a retailer display?

The force of this argument was recently brought home to the Norwich Pharmacal Company who used such display dozen cartons in packing Unguentine. The economy that could be effected by using the bundling method to wrap Unguentine instead of employing the more expensive display dozen cartons which were most often discarded by the dealer when unpacking the shipment, was brought to their attention by a trade paper advertisement. The advertisement



View in plant of Norwich Pharmacal Company, Norwich, N. Y., showing the packing of Unguentine by the bundling method. The girl at the left is inspecting the individual cartons and placing them on the three feed belts of the bundling machine which is shown in the center. The bundles before the ends are closed can be seen in the machine. On the table at the right end of the machine is standing a gross case containing 12 bundles of one dozen each. A stock of empty gross cases is shown standing against the wall.

stressed the economies of the bundling method when using a bundling machine made by the Package Machinery Company.

The facts of installation made last Fall, are given in a survey made by A. C. Nielson Company, engineers, in collaboration with M. C. Eaton, vice-president of Norwich Pharmacal Company, and H. A. Sumner, Assistant Superintendent of the same company.

In place of the display dozen cartons, the company now uses kraft paper with two end seals. At present output is limited by that of the preceding cartoning machine. When a proposed new cartoning machine of higher capacity is installed, the bundling machine will be operated fewer hours and will make proportionately greater savings. At present the bundling machine is operating at one-tenth of its rated capacity and is saving at the rate of $4,908.00 per year—a rate that will return the cost of the machine in fifteen months.

Unguentine tubes are first individually cartoned at the rate of fourteen to sixteen gross per hour. The operator at this machine inspects cartons and places them on the three feed belts of the bundling machine over which they are carried in tiers of three. Twelve cartons are bundled in kraft paper, and two descriptive end seals, carrying the name of the product, are applied to the ends. One operator stands at the delivery belt, inspecting bundles and packing them into shipping cases of one gross each.

When using the former method, the display cartons were set up by a girl who placed them on the inspector's table. This girl removed them, when filled, to put on a slip cover and pack them into gross cases. As far as operations up to the point of delivery of cartons to the machine and from the point where bundles are put into cases, the same labor is required now as formerly for production of 1,320 dozen per day, since the present machine speed is set by that of the cartoning machine.

The display boxes, however, were much more expensive and weighed more than the present kraft paper and labels—the differential being about three ounces the package of twelve, and four pounds, two ounces to the gross.

In considering an alternative method of display to replace the display carton, a permanent display was designed for such merchants as request and use them. The advertising department of Norwich Pharmacal Company feels that the permanent displays are much more effective and their cost should not be considered as a charge against the present method of bundling, but rather as a credit, since the likelihood of their use is far greater than with the counter display boxes. There is also less loss when a shipment is damaged in transit.

The main advantage of the bundling machine is its saving in package material costs shown in a 65 per cent. reduction. The increased potential output which will effect relative savings as production is increased, is also of importance. The company has found that in view of the lighter weight of shipping container it is significant that damage in transit has been no more frequent than with the former type of package.

A following table gives a comparison in parallel columns of the costs by both methods. The bundling machine is depreciated over a period of fifteen years which is considered conservative with the present low speed and careful maintenance. There have been no repairs, but an allowance of $100 is made. This covers oiling by the foreman, and supervision of the ¾ hp. motor by the plant mechanic. Fixed charges total $711.73 per year, or $2.37 per day.

Daily operating costs include power, wrappers, labels, glue, and labor of one operator who feeds the machine. For 6½ hours of daily operation the cost is $7.69.

The former cost was the same for labor but amounted to $24.05 per day for the same output due to high cost of the cartons—$21.85 versus $3.04 for the bundle wrappers and labels.

The average daily costs are at the rate of $.0058 and $.0182 per dozen. The differential in favor of bundling is $.0124. In a day at present output the saving is $16.36, and in a year of 300 days the saving would be $4,908.00 which is 79 per cent. of the installed cost of the machine. The investment is thus returned in slightly over fifteen months.

This showing is being made with the machine operating at one-tenth capacity. At least five times the present output can be obtained with the same labor, providing cartoning equipment is increased. Thus saving would be increased more than five times, since the fixed and operating costs on the machine would be practically unchanged except in the item of wrapping materials, whereas the labor for the hand method would be considerably increased.

Comparative Costs of Bundling Method and Packing in Display Boxes

Conditions of Comparison

Sizes	Carton	Package (1 doz.)	Case (1 gross)
New	1 x 1—¼ x 5 in.	3 x 5—¼ x 6 in.	10 x 10—½ x 12 in.
Old	1 x 1—¼ x 5 in.		
Weight—old		1 lb. 9 oz.	23 lb.
new		1 lb. 6 oz.	18 lb. 14 oz.

Production—average—1,320 doz. a day—before and now.
Speed of machine—four bundles per minute, set wholly by output of cartoning machine—rated capacity is 40 bundles per min.
Labor—one operator full time—300 days a year.

Fixed Charges on Machine	
Depreciation—$6,200.00—15-year life	$413.33
Average interest at 6%—16/15 x $6,200.00 x .06/2	198.40
Maintenance and repair allowance	100.00
Total	$711.73

Comparative Daily Packaging Costs	*Machine*	*Hand*
Daily fixed charge—$711.73—300	$2.37	
Power—4 kw.-hr. @ $.02	.08	
Wrappers for machine—1.32 M @ $.90	$1.19	
End Seals for machine—1.32 M sets @ $1.40.	1.85	
	3.04	
Display boxes—1.32 M @ $16.55		$21.85
Glue—allowance	.05	.05
Labor—6½ hr. @ $.33	2.15	2.15
Total daily packaging costs	$7.69	$24.05
Unit Costs Per Dozen (Package or bundle)		
On output of 1,320 dozen a day	.0058	$.0182
Differential	.68% .0124	
Savings by Machine Method		
Per Day—($.0182-$.0058) x 1,320	$16.36	
Per Year—300 days	$4,908.00	
Net annual return on investment	79%	

Survey No. PK-51-QM Date 3-31-28 HM

Oral Antisepsis

By Victor Ross, Ph. D.

From the Plaut Research Laboratory, Lehn & Fink, Inc

Blank & Stoller

In concluding his article, Dr. Ross names the later products available for oral use, giving the merits claimed for each and the reasons for these merits. He also calls attention to the conditions that cause these products to fail.

WE talked above of the many varieties of organisms present in the human mouth. All bacteria are unicellular but they do not respond to disinfectants in the same manner. Some require smaller, others larger concentrations to kill them. The resistance of the typhoid bacillus, which is probably comparable to that of some of the bacillary forms in the mouth, is such that a representative strain, generally used in testing disinfectants requires a 1 to 80 dilution of phenol to kill it in five minutes. Staphylococcus aureus, which was mentioned as one of the forms met with in the mouth, requires a larger concentration, approximately a 1 to 50 or 1 to 60. These may appear to be slight differences, but with germicides whose killing powers are considerably greater than that of carbolic acid, these differences are magnified. When organic substances are simultaneously present stronger solutions are necessary. For example instead of a 1 to 80 dilution it will require a 1 to 60 to kill typhoid germs; and instead of a 1 to 50, or 1 to 60, dilution to kill staphylococcus, the pus forming germ, it will require a 1 to 40. This is a 2½% solution of phenol. The need for an antiseptic which will have a low toxicity is apparent when one considers the thought of regularly applying a 2½% solution of phenol to the mucous membranes of the mouth. In the case of this chemical the difference between the strength required to destroy the organism when water alone is present, and that needed when organic matter is in the mixture, is slight, as will be noted from the figures. Generally with germicides of much greater power, these differences are very much larger; in some instances the effect when organic matter is added becomes nil.

Let us proceed to a consideration of several of the relatively new substances which have been or are being used for creating a state of approximate oral antisepsis. Before doing so it may be well to distinguish between the meanings of the words antiseptic and germicide, since these two terms are frequently incorrectly used as equivalent. A germicide or disinfectant is a substance which kills microorganisms, whereas an antiseptic is a substance which simply inhibits their further multiplication. It is evident therefore that a chemical which is a germicide will also be an antiseptic. The reverse need not be true.

Merit of Ipecac

In recent years much importance was attached to entamoeba buccalis as a causative agent in pyorrhea alveolaris. Amoeba have been found in the pus pockets of affected teeth. Various streptococci have also been found living in symbiotic relationship to these amoebae and opinion is divided at present among those studying the problem concerning the true cause. At any rate, for a time the proponents of the belief that the entamoeba was responsible, found that ipecac and emetin hydrochloride had a curative effect in this disease. After preliminary scraping of the teeth, removal of hopeless teeth and old roots, patients were given a supply of this fluid extract of ipecac for local use with instructions to use two or three drops on the tooth of brush. Tooth powders modified by the addition of five grams of powdered ipecac to 95 grams of powder were also employed. As a mouth wash it was used in the proportion of 10 drops of fluid extract of ipecac to one fourth to one half glass of water to be used after cleaning the teeth morning and night. A good deal of the enthusiasm originally created over the use of this drug has waned, and some believe that although it is a good amoebicide, it will not by itself cure pyorrhea.

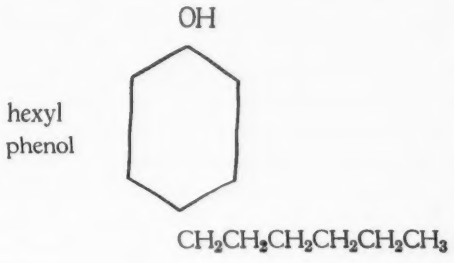
More recently there have been introduced two preparations which are recommended as excellent mouth antiseptics. These are castor oil soap and hexylresorcinol. The action of the former is ascribed to (1) its surface tension reducing properties, (2) its specific action against streptococcus and pneu-

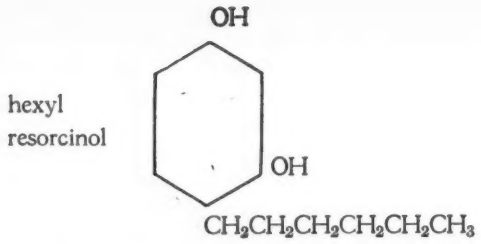
mococcus germs and (3) its property of detoxifying toxins of bacteria. All soaps possess these properties and the special qualification of sodium ricinolate in this regard is owing to quantitative differences rather than to qualitative ones. The other two characteristics are probably consequences of the first, the ability to reduce surface tension. One must not imagine that sodium ricinolate will kill all or even many types of bacteria, for if one does, one is bound to be misled. A recent test by the writer demonstrated that typhoid bacilli, for example, are not destroyed after 15 minutes contact with a 15% solution of this soap. Pneumococci are quickly killed by soaps of oils other than the castor bean also. It is peculiar that soaps made from this oil enhance the germicidal power of cresols and related compounds more than do other soaps. It is also true, however, that given an excess of soap in the presence of such phenolic compounds, the otherwise active mixture becomes innocuous, or nearly so, to germ life. Castor oil soap has been shown also to neutralize the toxins of certain toxin forming bacteria. On the other hand, it has also been demonstrated that certain substances deprive sodium ricinolate of its detoxifying property. The excessive enthusiasm of some writers over the usefulness of this substance is unwarranted. One writer has said "It is believed that sodium ricinolate is one of the most valuable discoveries of recent years and it is expected to be of value and promises good results when applied to bacterial infections of any mucous membrane." The soap is so completely without germicidal power against so many species of bacteria that such a statement is evidently exaggerated. Pneumococci quickly autolyze by themselves, especially in water suspension, and it is not unlikely that the soap hastens this process. Its specific action as a neutralizer of certain bacterial toxins is a property of the substance which should not lead to the belief that is is a general bactericide.

It is believed that the action of castor oil soap and other soaps as inhibitors of bacterial growth is owing to their surface tension reducing property. Surface tension plays a very important part in most biological processes if not all. What is surface tension ? The surface of a liquid possesses different properties from the interior. The surface is resistant to rupture because of the fact that the molecules in it are unable to move as freely as those in the interior. It is surface tension which maintains in a spherical condition a drop of water placed on a clean glass slide. When a bacterium is suspended in a fluid the same thing takes place as when a larger object is immersed, that is, a surface film is formed. Now those substances which depress the surface tension are known to collect at this surface film in greater concentrations than anywhere else in the body of the fluid. This increased concentration accounts for increased and speedier bactericidal efficiency.

Another chemical which has recently been reported on as an effective aid in diminishing the number of germs in the mouth is hexylresorcinol. Its chemical formula is $C_6H_3(OH)_2C_6H_{13}$. It is resorcinol with a substituted hexyl radical for one of the hydrogen atoms of the nucleus. Leonard first introduced this compound as a urinary antiseptic. The lower members of this resorcinol group were first prepared by Prof. Treat B. Johnson of Yale University. It so happens that of the series of alkyl resorcinols, those preceding the hexyl member, that is the propyl, butyl and amyl, as well as those following it, the heptyl and octyl, have all lower phenol coefficients. The germicidal strength gradually rises till the hexyl member is reached, and then it diminishes. Besides being a good germicide it is a surface tension reducent, and thus two desirable properties are united in this chemical and help explain part of the reason for its usefulness as a urinary antiseptic and for the attempt to introduce it as a mouth antiseptic. It is non-toxic and non-irritating when prepared in a 1 to 1000 dilution in 30% glycerin in which strength Feirer and Leonard recommend it. Such a solution is germicidal in 15 seconds against bacillus typhosus and staphylococcus as well as against bacillus coli, bacillus diphtheriae and several other common pathogenic organisms. These authors found it to be very effective against infections of the gingival margin of the teeth. In this connection it is rather astonishing that they found not one of 27 different mouth washes, which they purchased in the open market and tested, was able to destroy staphylococcus aureus after five minutes contact. The chemical is one which promises great usefulness prepared in the form of a mouth wash. One must not be sanguine, however, with regard to its behaviour in the presence of a medium other than water or glycerin or other direct solvent, until such mixtures have been submitted to laboratory and clinical tests.

An interesting and important piece of work which was probably stimulated by the extensive experiments with the alkyl resorcinols has recently been performed by Tilley and Shaffer (7) of the United States Department of Agriculture. These Government chemists thought it would be a good idea to make the corresponding alkyl phenols and test their bactericidal activity, hoping to find that these would also possess this property to an unusual degree. The realtionship between hexyl phenol and hexyl resorcinol is shown in the accompanying structural formulas.





The alkyl phenols are also extremely effective bactericidal agents and with further work it is possible that they will find a place in oral antisepsis especially if it develops that they are non-toxic and non-irritating. These two groups of compounds, the alkyl phenols and the alkyl resorcinols, illustrate how markedly the properties of a substance may be altered by the simple introduction of a radical in the nucleus of the molecule. The destructive power against microorganisms is enhanced many times while the toxicity is almost as strikingly reduced. Such a combination is the ideal one for which we are seeking.

Compounds of Tellurium

In recent years there have been published the results of experiments demonstrating that certain compounds of tellurium are extremely bactericidal. In fact it is doubtful whether any known substance excels this group of chemicals in this property. Million fold dilutions of the pure substances were found to kill bacteria. The element tellurium is classed by chemists with sulphur and selenium. It forms, for example, the compound hydrogen telluride H_2Te chemically analagous to hydrogen sulphide. These very active germicides containing tellurium have not yet received sufficient pharmacological attention to warrant their use as medicinal agents.

One thing it is necessary to keep in mind when any preparation is recommended as an aid in maintaining oral antisepsis: will the material reduce the number of bacteria in the mouth markedly ? It is not enough to know that it will kill bacterial in the test tube quickly. The actual test must be made on the mouth by counting the number of viable bacteria before and after using, and by measuring the length of time the number of germs remains reduced. In this regard is essential to keep in mind that simple rinsing by itself will reduce the number of organisms, and consequently in carrying out the tests, controls must be made. A difficulty which arises in this sort of work is that no reliable method is known for counting the total number of germs in the mouth at any time. It is only the number that is rinsed out which we measure, and not those remaining in the mouth, which is more important. It has recently been confirmed by Appleton (8) that vigorous rinsing of the mouth fails to decrease the bacteria which can be removed by a second rinsing, thus indicating that the first washing failed to wash out any but a negligible number of germs. The fact that the second rinsing gave as large a bacterial count as the first, may be owing, however, to the loosening of the debris by the first washing and its removal by the second. This experiment does not prove that rinsing the mouth is a useless procedure; it shows rather that one rinsing is almost so, and that the better thing to do is to rinse at least several times. The use of a tooth paste together with thorough brushing of the teeth has been found to lower the bacterial population of the mouth by 50%. Here again the victory is not a permanent one for one hour later the number is back to where it was. Our lesson from this is to use tooth paste and a brush and to do so several times a day and not alone on arising and retiring. The time devoted to cleaning the mouth is altogether too short. It is interesting to think that the average time spent on brushing the teeth is less than 30 seconds.

Factors in Failure

Attention was directed in the preceding paragraph to the need for determining not only whether a certain chemical will destroy bacteria in the test tube, but whether it will do so in the mouth. Having found that, when dissolved in water and used as a rinse, it does do this, one is inclined to assume that no matter what base the chemical is mixed with, the same results will be obtained. This is far from being true. It can readily be imagined that the germicidal activity will be lowered considerably or even entirely annulled by incorporating other substances with the active one. One has only to recall the many incompatibilities known in pharmacy to reassure himself that such a phenomenon would not be surprising. It is known for example, that Dakin's solution is an active germicide when the bacteria are suspended in water. However if one suspends the germs in a solution of organic matter, like serum, the disinfecting power suffers a striking loss. In the presence of defibrinated blood even undiluted Dakin's solution fails to kill staphylococcus aureus in two hours at 37°C. This is an extreme example; solutions of cresols in common use are affected relatively to a small extent. The illustration may not be an apt one, for here the organic matter is not part of the antiseptic mixture in a package; nevertheless the net result would be the same.

In concluding, attention should be directed to the need for making a thorough study of the effects of the prolonged use of any antiseptic in the mouth. It will not be sufficient to say that such and such a chemical is better than another for disinfecting the oral cavity. This is the first prerequisite. In addition it will be important to study its effect on the salivary glands, on the salivary enzymes and mucin, on the mucous membranes, etc. It will be equally important to learn whether any of the material is absorbed through the walls of the mouth and if so what happens to it, and whether it affects the enamel of the teeth or the gums. On account of the vast interest exhibited at present in any substance which claims to act as a mouth antiseptic we are inclined to be too hasty in accepting incompletely tested remedies. For the

present we do well if we remove food debris as thoroughly as possible and follow this by a vigorous cleaning with a brush and toothpaste.

References

(1) Zinsser, H. A Textbook of Bacteriology, New York, 1922.

(2) Miller. Die Mikroorganismen der Mundhohle, 1893. Quoted by Printz, H. in Dental Materia Medica and Therapeutics, 5th. edition, St. Louis, 1920.

(3) Pickerill, H. P. The Prevention of Dental Caries and Oral Sepsis, London, 1914.

(4) Bunting, R. W. Further Studies of the Relation of Bacillus Acidophilus to Dental Caries. The Dental Cosmos, 1928, *70* 1-12.

(5) Howe, P. D. D.D.S., The Interpretation of Dental Lesions in the light of recent Research J. of Dental Research, v.7, 145-152—1927.

(6) Feirer, Wm. A., and Leonard V., Hexyl Resorcinol in Oral Antisepsis with Special Reference to Solution S. T. 37. The Dental Cosmos, 1927, *69* 882-892.

(7) Schaffer, J. M. and Tilley, F. W., Further Investigations of the Relation between the Chemical Constitution and the Germicidal Activity of Alcohols and Phenols. Journ. Bact., 1927, *14*, 259-273.

(8) Appleton, J. L. T., The Effect of Rinsing the Mouth and Brushing the Teeth upon the Number of Bacteria Present in Subsequent Rinsings. The Dental Cosmos, 1927, *69*, 1026-1034.

Coal-Tar Medicinals Decrease

Production of coal-tar medicinals decreased during 1927, states U. S. Tariff Commission, when 3,599,000 pounds were produced, against 3,696,000 in 1926. Sales during 1927 were 3,528,500 pounds, valued at $6,819,500.

Prior to 1914, the Commission reports, domestic production of coal-tar medicinals was limited to acetanilid, benzoic acid, acetphenetidin, some of the salicylates, and a few others. At that time our entire consumption of many of the most valuable and important medicinals was imported. During the war the need for a number of products became acute and several domestic manufacturers began their production.

Among the important medicinals made in the United States are: arsphenamine (salvarsan) and its derivatives. The pre-war price of "606" (salvarsan) when this country was dependent upon Germany for its entire supply was $3.50 per ampoule. The present contract price to the Government is 18 cents per ampoule. Barbital and luminal are important sedatives. Products such as apothesine, butyn, butesin, and tutocaine are among American developments used as local anesthetics. Certain coal-tar dyes have valuable application as medicinals: for example, acriflavine and proflavine possess marked antiseptic and germicidal properties. In the treatment of wounds acriflavine and proflavine are comparatively free from irritant action on living tissues and do not inhibit appreciably the natural healing process.

The following table shows the domestic production of some of the important medicinals.

Coal-tar Medicinals: Domestic Production and Sales, 1927

Name of Product	*Sales*		*Production*
	Quantity	*Value*	*Quantity*
	Pounds		*Pounds*
Acetanilide, U. S. P.	3 65,000	$ 112,000	367,000
Arsphenamine	355	93,760	265
Aspirin (acetyl salicylic acid)	1,721,000	1,079,000	1,716,000
Benzocaine (anesthesine)	2,900	35,600	4,000
Cincophen	85,300	405,500	84,200
Neoarsphenamine	4,360	1,180,600	3,900
Salol	65,000	53,700	51,500
Sodium salicylate	446,400	175,000	493,000
Sulfoarsphenamine	822	286,500	800

Speculators Advance Citrus Oils

Speculators not in any way connected with the recognized dealers in essential oils, have taken advantage of the basically firm conditions in the citrus oils (DRUG MARKETS, April, 1928) and have created a much excited market with prices reaching a new record for orange oil. Early in the month shipment prices for Italian orange oil had advanced to $5.00 per pound to dealers, and there was no Java oil to be had. Spot offerings were made below this figure but this was thought by some to be only temporary. On the other hand, one dealer offered contracts over a three month's period at $4.40 per pound. Heavy buying of Italian orange oil, by speculators is responsible for the aggravated condition of the market. California oil is in very meager supply, and cannot be expected to influence the market.

Lemon oil has likewise felt the effects of speculative actions, and early in the month offerings of Italian oil to dealers were held at $3.05. There were offerings of spot oil as low as $2.90, but this was not expected to last if unloading by the speculators did not become necessary.

Bergamot prices followed suit for no apparent reason other than one of sympathy, and mandarin was also affected.

Dealers admit that the advent of the heavy consumption period for soft drinks makes the situation serious. However, they state that citrus oils are dangerous items for speculators and that lessened demand is certain to result if the price goes much higher. However, there are no real substitutes for lemon and orange oils.

Selling Industrial Medicine

By F. K. Thayer

Abbott Laboratories

WE believe that there is much sound, practical sales-philosophy in that old familiar Biblical quotation "Ask and it shall be given you." Most certainly the introduction of our specialties into the first-aid room and the adoption of these products by industrial surgeons and nurses, constitutes a problem of aggressive sales.

These last few decades which have witnessed notable improvements in pharmaceutical preparations and a corresponding growth in the drug business have, at the same time, given rise to such industrial growth that we truly are living in an age of "mass production."

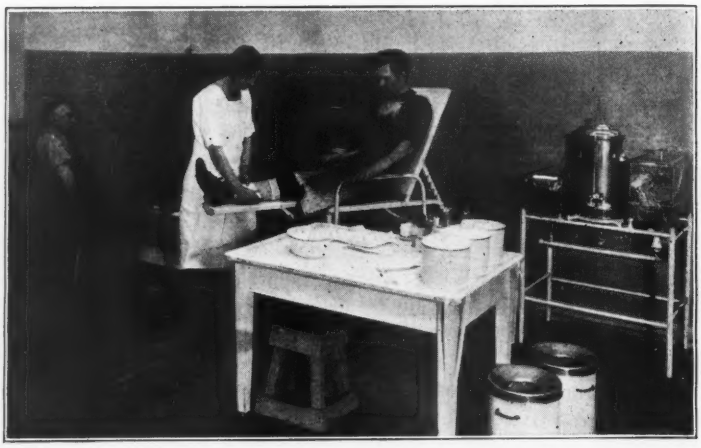


Illustration from the Abbott Laboratories booklet, "The Industrial Medicine Chest." The caption for this illustration in the booklet is "First Aid Dressing Room, Nash Motors Company, Kenosha, Wis., Users of Abbott Products."

Centralization and amalgamation seem to be the keynote of the vast industrial business in the United States. So fast has been this pace of growth, that only now are corporations beginning to realize that healthy workers are also a factor in obtaining healthy dividends.

The importance of the health of workers is being brought home more forcibly to employers. It used to be that a skilled workman was responsible only for the piece-work production which issued from his hands, but now that workman supervises the production which pours from a machine, increasing many fold the quantity which he was heretofore capable of producing.

Industrial medicine may be divided into preventative and remedial medicine. Each is of importance and is receiving recognition. We quote from Dr. William Alfred Sawyer, Medical Director, Eastman Kodak Company:

> "Industrial Medicine in its real meaning is much more than the patching and mending of injured workers. It is primarily the prevention of sickness rather than its cure."

Figures substantiate the importance of caring for the workman. Commissioner Hamilton, of the New York State Department of Labor, in his report for September 1927, says:

> "Fifteen men died in the State of New York during the month of September as a result of infection which started from apparently harmless injuries. In other words, fifteen men would be alive to-day in New York State had it not been for the neglect of infection prevention treatment after they had met with minor injuries."

Corner of Hospital of The Proctor & Gamble Company, Ivorydale, O., also shown as users of Abbott products.

Along with the stark evidence of life and death figures, look also at the economic importance of infection in industrial accidents: the average compensation cost of non-infected cases reported in New York was $480.75; the average compensation cost of infected cases was $897.60. The average dis-

ability period of non-infected cases was twenty-four and two-thirds week; the average disability of infected cases was forty-two and one-half weeks.

With five successful, germicidal preparations, is it any wonder that we are expending the effort to inform manufacturing concerns of the merits of these products ? Our list of medicinals designed for preventative purposes is featured along with our remedial products.

Now, for some of the problems which enter into the promotion and distribution of ethical pharmaceutical products to this class of trade.

It is our aim, to detail and sell industrial concerns with the co-operation of their neighborhood dealers. While we are building a worth-while business for the druggist in this class of trade, we point out to him the advantages of making systematic calls of his own accord. Volume business, not only in pharmaceuticals, but in all first-aid accessories are to be had for the solicitation from surrounding manufacturing concerns.

A salesman who has been accustomed to calling on the doctor and the druggist must adapt himself to this new province of sales. No longer can the purchase always be made on the say-so of the surgeon. Formalities of requisition, and often times of written-quotations, are the rule. The purchasing department cannot and must not be ignored. The first-aid director and the safety engineer sometimes outrank the medical attendant, and, what is of extreme importance, the salesman must be tactful as he maneuvers between these various department heads. It will be to his advantage if he acquires the ability to think in terms of gross lots instead of dozens. Let him have at the tip of his tongue, the various sundry discounts on quantities, remembering always, that these discounts sound attractive to the purchasing man.

To supplement the personal call, we have gone to considerable expense to prepare a 32-page booklet, illustrated, containing a brief description of all Specialties which would be of interest to industrial concerns. We have named this booklet, "The Industrial Medicine Chest." The illustrations are pictures of the dispensaries, hospital rooms and general views of the plants of various users of Abbott products. Turning through the book, we read such names as the Proctor & Gamble Company, Armour & Company, Grasselli Chemical Company, International Nickel Company, The Nash Motors Company, Corn Products Company and many others. The use of these pictures, by permission, virtually constitutes testimonials to the efficacy of our products.

The gratifying response which this campaign has elicited assures us that no longer is it desirable for us to hide our light under a bushel, in the field of industrial medicine.

Parke, Davis & Co., Detroit, appoints Blackman Co., New York as advertising counsel. This is taken as evidence that Parke, Davis & Co., are about to start advertising directly to the public.

Philadelphia Magnesia Plant

Philadelphia Magnesia Co. announces a change in formula to conform with that of U. S. P. X., which contains two grams more of citric acid per bottle than U. S. P. IX.

The recently completed plant of the company at Twenty-third and Dickinson Streets, Philadelphia, is said to be the largest citrate of magnesia plant in the United States. A feature of its modern construction and equipment is the bottle washing and sterilizing machine, the same as that used in the Supplee-Willis-Jones milk plants.

The filling machine is so constructed, that all the parts which come in contact with the solution are made of bronze. This filler was made specially according to the company's specifications, and it is constructed so exactly that each bottle gets the exact measure of 11½ ounces of the solution disregarding the size of the bottle.

After the bottles are filled a soda bicarb slug is put in each bottle and they continue over a motor driven conveyor to the crowning machine where the bottles were crowned. They are then put into pasteurizing machines after which twenty-six minutes later, the product is ready for dispensing.

Newfoundland Cosmetics

All cosmetics, perfumes, and related hair and face preparations used in Newfoundland are imported. The following statistics show the importations of cosmetics, perfumes, tooth powders, and other powders for the last two fiscal years, ending on June 30, 1926, and June 30, 1927, respectively.

	1925-26	1926-27
Country of Export,	Value	Value
United Kingdom,	$4,701	$5,211
Canada,	8,525	7,851
United States,	26,514	25,316
France,	917	1,058
Germany,	80	371
St. Pierre,	7	15
Total.....	40,744	39,822

These figures do not include preparations containing alcohol, for which there are no available statistics. Countries of origin are not shown directly as the customs statistics take into account only the immediate foreign origin of the importations. In the point of actual importations, France leads by more than 50 per cent., followed by the United States and Great Britain. The figures in the table for the United Kingdom, Canada, and the United States include many articles of French manufacture transshipped from the countries mentioned. The figures for Canada include a considerable proportion of goods manufactured in the United States as well as goods manufactured in American branch factories located in Canada. Practically all hair preparations are of American manufacture.

NEW MEDICINALS

A List of the New Pharmaceuticals Appearing During 1927 as Specially Translated from the German of Professor S. Rabow in "Chemiker Zeitung"

Beatin — Combination of beech wood tar creosote in purified state, rendered soluble in water by lactic acid of calcium lactophosphate, aconite and codeine. Used in treatment of lung diseases, tuberculosis, etc. Introduced in form of syrup. Described by Jacobowitz in Med. Klin., year 1927, pages 874ff; by Loewenstein in Fortschritte der Medizin, year 1927. pages 216ff. Made by Deutsche Beatinfabrikation, Berlin, Germany.

Bellinguol — Contains secretions of animal intestinal glands and extracts. Comes in tablet form. Used in diabetes. Described by Diebel in Fortschritte der Medizin, 1927, pages 110ff. Made by Chemische Laboratorium J. C. Bellas, Berlin-Lichterfedle, Germany.

Blapsin — Keramin and chrysarobin. Made in form of blapsin soap, salves and essences. Used in psoriasis. Described by Singer in Die Med. Welt. 1927, pages 1567 ff. Made by Fabriken Karl Toepfer, Naumberg, Germany.

Brojosan — Consists of bromine, iodine and albumen in form of pills of 0.25 gram dose. Used in arterio-sclerosis. Made by Troponwerke Dinklage & Co., Koeln-Mulheim, Germany.

Bromaex — Liquid bromine -yeast with flesh-like taste. One teaspoonful corresponds to 1.0 gram sodium bromate. Used in nervous maladies. Made by "Bero" G.m.b.H., Darmstad, Germany.

Brotonat (**Bromtropon**) — Bromine and albumen pills containing 40% bromine. Used as sedative. Made by Troponwerke Dinklage & Co., Koeln-Muelheim, Germany.

Calcipot — Lime preparation with agreeable odor, coming in tablets, 1.0. Dose two to three tablets several times a day. Made by Troponwerke Dinklage & Co., Koeln-Muelheim, Germany.

Calsimalt — Malt confection and silicic acid in colloidal form. Used for tubercular and scrofuluous children one to three years old. One bonbon is dose for these children,—for children 8-14 years and adults dose is 4-6 bonbons daily. Made by Dr. Pfeffermann & Co., G.m.b.H., Berlin, NW 11, Germany.

Causyth — Pyrazolon derivative, cyclohexocuperidin. An irritant tablet. Used in rheumatism. Dose: from 1½-2½ grams every third or fourth day. Described by Letzel in Wien. klin. Wochenschrift, year 1927, pages 604ff; by Duschak in Med. Klin., 1927, pages 952ff. Made by Oesterreichische Heilmittelstelle, Vienna, Austria.

Codyl Syrup Ingelheim — Contains narcotin hydrochloride, papaverin, narcein, thebaine and codeine hydrochlorides. Used in inflammatory conditions of breathing organs. Dose: one tablespoonful several times a day for adults and one teaspoonful several times a day for children. One teaspoonful is equivalent to five grams of the syprup or 0.004 of codeine hydrochloride. Described by Hochstetter in Die Med. Welt, 1927, number 22; by Kruesli in Prakt. Tuberkulose Blaetter, year 1927, number 8. Made by C. H. Boehringer Soehne, Hamburg, 5, Germany.

Colsil — Chrloresterin with small amount of lecithin, used as a prophylatic in preventing catarrhs incurred in working with X-ray machines. Two tablets are allowed slowly to dissolve in mouth. Described by Burgheim in Duetsche Med. Wochenschrift, year 1927, pages 1859ff. Made by Chemische Fabrik Gruenau, Landshoff & Meyer A. G., Berlin-Gruenau, Germany.

Cordoenin — Quinoline derivative which also contains suprarenin. In 100 cc are 0.3 gram of 8-ethoxyquinoline-5-sulphonic acid, neutralized by 0.15 gram of sodium tetraborate and 0.02 gram of suprarenin hydrochloride. A yellowish-colored liquid for protection of eyes against action of ultra-violet rays. Also for maladies which render eye highly sensitive to light. From one to two drops are used. Described by Niederhoff in Strahlentherapie, 1927, volume 26. Made by J. D. Riedel A. G. Berlin, Germany.

Cutovaccin Paul — Vaccine prepared by Paul for stimulant therepy. Used in rheumatism, gout, sciatica, neuraglia. Described in Wien, med. Wochenschrift, year 1927, number 14. Made by Institut A. Von Wassermann des Dr. Laboschin, Berlin, Germany.

Desencin — Iodine preparation of hypnotic and spasmolytic properties, consisting of para-iodoethoxybenzoic acid benzyl ester (nineteen parts by weight)

(Continued on page 474)

Uniformity

INDUSTRIAL CHEMICAL Co.

200 FIFTH AVENUE
NEW YORK, N.Y.

EXTRA LIGHT PRECIPITATED CHALK

Found In The Tubes Of Leading Tooth Pastes

4/16-1

Helping Your Product OVER THE COUNTER

The dealers' counter is the focal point of all your merchandising. Here is the final test of your advertising, your dealer helps, your salesman's work. A customer stands at the counter---a tooth paste, ointment, cream---is wanted. Several brands are displayed beneath the glass of the counter. Will your product pass over the counter? Will it meet critical inspection?

¶ Wirz collapsible tubes, at this critical point, never fail the manufacturer who uses them. Beauty of design and decoration are there, perfect colors and color register.

¶ Let the A. H. Wirz Inc. organization suggest design and color combinations for your new tube. Let us assure you a perfect printing where color and design is decided upon.

A. H. WIRZ, INC., CHESTER, PA.

Collapsible Tubes-Metal Sprinkler Tops

30 East 42nd Street New York City — *Established 1836 Incorporated 1914* — 1231 E. 7th Street, Los Angeles — Railway Exchange Bldg. Chicago

{ News of the Drug Industries }

A. D. M. A. Meeting of Highest Type

Sales Problems Proves Most Popular Session—Scientific Section Creates Much Interest In Cod Liver Oil, Colored Glass and Pharmacology—Charles G. Merrell Reelected President—Other Officers Reelected.

Of the general sessions of the meeting of the American Drug Manufacturers' Association, held at Hotel Biltmore, New York, April 30-May 3, the second session on Sales Problems was by far the most thoroughly enjoyed. Under the able guidance of W. W. Sykes, Chairman of Committee on Sales Problems, a high type of program was arranged. The opening address was delivered by J. K. Lilly on "Territorial Valuation," in which Mr. Lilly told of the old methods of laying out territory from an atlas on a moment's notice. But to-day many factors are taken into consideration such as urban population, drug stores, physicians, hospital beds, income tax returns, bank deposits, motor registration, and drug usage. A certain combination of these factors will give a proper valuation index upon the state under consideration.

Charles G. Merrell

Dr. F. B. Kirby discussed Mr. Lilly's paper giving the methods now in use in Abbott Laboratories. The districts laid out by Dr. Kirby has brought excellent results, increasing the number of calls made, and reducing the cost per call very materially.

Turner F. Curren's, Norwich Pharmacal Co., next spoke on "Drug Trade Advertising." Mr. Currens stated "that advertising is growing in importance is certain when we see bankers advancing money to finance advertising campaigns. Stock flotations engineered frankly state that their desire is to secure money for advertising. All this is based on the premise that the greatest possible good-will is in the ownership of the public mind, to the extent that consumers can be so strongly sold on a product, that they will demand that product and accept no other."

R. D. Keim, E. R. Squibb & Sons, discussed Mr. Curren's paper and entered into a criticism of the retail drug papers for being unknown quantities in the field of advertising. He stated that such papers are not being read, and that they should print material that will be instructive to the retailer instead of a lot of minor personal notes.

O. J. Niederhofer, The Wm. S. Merrell Co., delivered "Views on Professional Advertising," in which he urged writers of copy to be human even when advertising ethical products. He stated that doctors and druggists were human beings and that the appeal must be to their emotions.

"Success in Medical Advertising" by Harry C. Phibbs, advertising agent, Chicago, closed the session. Mr. Phibbs delivery was excellent since he acted the parts of all the characters he talked of, detail men of various types, doctors, and others. He stated that in an investigation to test the cost per inquiry of trade papers against other mediums, the trade paper gave the cheapest cost.

The first general session of the association was held Tuesday, May 1. Charles G. Merrell, president, in his report reviewed the progress of the year and commended the work of the various committes. He stated that the value of association was best expressed in the fact that "unremitting vigilance is the price of freedom of our industry from oppressive and unwarranted interferences."

Carson P. Frailey, secretary, in his report covered the work of the Washington office during the year. He covered the various changes in laws and regulations.

The report on legislation, given by Horace W. Bigelow, counsel, dwelt largely on parcel post regulations in Cuba, urging support of the bill in Congress tending to render permanent the temporary parcel post convention with Cuba. He stated that the Vestal Bill to protect trade names used in commerce can be endorsed.

Dr. George W. Hoover, retiring Chief of Drug Control, covered the recent work of the Department in antiseptics, cod liver oil, and tablets. He spoke of the great value of the co-operation between the members of the contact committees of the various associations.

Reports of the committee on cost accounting, appointment of nominating committee, and report of the delegates to the National Drug Trade Conference concluded this session.

A. Homer Smith

The third general session was confined to committee reports which brought on discussion on such subjects as Employment Problems, Education, Insurance, Patents and Trade Marks and Foreign Trade.

The fourth and fifth sessions were held together being cleared up on the morning of May 3. Dr. James M. Doran, Commissioner of Prohibtion, was the principal speaker at this session. "The Prohibition Department, in administrating the permissive features of the Prohibition Act, is settling down to a reasonable basis," he said. "Many legal problems have been settled by the courts, and many minor problems which at first loomed large, are now behind us."

The Scientific Section, which met Monday, April 30 and the morning of Tuesday, May 1, covered much important ground during its sessions. During the first session, the report of Dr. A. D. Holmes on Vitamin A Assay of Cod Liver Oil created much discussion. The report recommended that the provision in the U. S. P. X., "when assayed, the oil shall contain at least 50 units per gram" is much too low a standard. Furthermore, that this has been taken advantage of by certain concerns in comparing the vitamin A activity of their products to this low standard. Therefore, the above provision should be changed to read, "when so assayed, the oil should contain at least 250 units per gram.

There was discussion as to whether or not 250 units was not too low, since good pure oil contains 500 units per gram. But the chairman of the committee thought that an increase from 50 to 250 was quite a reasonable jump at one time. It was his

opinion that at some future date the standard might be improved still further.

Dr. David I. Macht, pharmacologist of Hynson, Westcott & Dunning, addressed the section on "Some General Aspects of Pharmacology." Dr. Macht brought to the attention of the section the important part that the action of certain drugs on plant protoplasms is having on scientific progress in drug manufacturing and in drug application. He told of the great toxicity upon plants of products that were not very toxic to animal life, and told how this was very useful in control of production of these products.

Dr. Paul S. Pittinger, delivered an address on the "Pharmacology of Ephedrine" which was well received.

A report on the Actinic Values of Glass by Dr. John C. Krantz, Sharp & Dohme, proved one of the highly interesting papers of the Scientific Section. He told of much research work that had been carried on, and told of a meeting to be held the following Friday with representatives of the various drug manufacturing associations and the glass manufacturers representatives.

Officers were re-elected as follows: Charles G. Merrell, president; A. Homer Smith, first vice-president; Nicholas H. Noyes, second vice-president; J. H. Foy, third vice-president; Carson P. Frailey, secretary; Franklin Black, treasurer; Horace W. Bigelow, general counsel.

The banquet and dance was held Thursday evening. The president spoke briefly, after which Sir James Alexander, humorist entertained the diners.

Ergot Suit Continues

Suit of Howard W. Ambruster, New York, for injunction against Secretary of Agriculture Jardine, Secretary of the Treasury Mellon and Secretary of Commerce Hoover for their alleged acts permitting importation of sub-standard ergot of rye into the United States in violation of existing law is being argued in equity division, Washington District Supreme Court (DRUG MARKET April 1928.)

May 1, John W. Price, counsel for Ambruster, filed two amendments to the original bill of complaint, over-ruling objections raised by Acting United States District Attorney Rover, representing the secretaries. In substance the first amendment stated that if "impure crude drug is continued to be permitted entry into the United States in violation of the Federal Food and Drug Act, such illegal action on the part of the defendants will cause your complainant great financial loss and irreparable injury by reason of the fact that your complainant will of necessity be compelled by reason of the lapse of time to offer for sale the pure United States pharmacopoeia ergot now owned or controlled by your complainant at a price greatly below the cost price."

The second amendment set out that "certain official preparations are to be made only from drugs that conform to the pharmacopoeia standards, definitions and descriptions, and that by reason of such provisions no fluid extract of ergot can meet the requirements of the United States pharmacopoeia unless it be prepared from crude ergot which is of the pharmacopoeal strength, quality and purity prescribed."

An answer in behalf of William M. Jardine as Secretary of Agriculture and Andrew Mellon as Secretary of the Treasury was filed May 8.

In the answer filed for the defendants it is recited that crude ergot sub-standard as to potency is legally admitted under the law when it can be made into standard fluid extract, in which form it is used in medicine. Affidavits were filed saying that no defective ergot was allowed final entry.

The jurisdiction of the Court to hear the case is questioned in the averment that the United States has not consented to be sued.

The application for temporary injunction was argued May 9 and 10, before Judge Hitz in the Supreme Court of the District of Columbia.

The Court granted permission to both sides to file additional affidavits and briefs within 10 days.

Francis Lathrup and John W. Price appeared for the complainant. Assistant District Attorney Leo A. Rover and James B. Horigan, Assistant Solicitor of the Department of Agriculture argued for the defendants.

New Tailby-Nason Plant

The cornerstone of the new laboratories of The Tailby-Nason Company in Boston was recently laid by Dean Bradley of the Massachusetts College of Pharmacy. Dean Bradley in his address spoke of the changes in conditions that made large manufacturing drug firms possible.

Pharmaceutical Cartel

The European trust movement advances another important step with the announcement of the formation of a pharmaceutical cartel with the principal producers of France, Switzerland and Germany as its first members.

The announced agreement is tentative, but will be ratified shortly. Within a brief period the cartel is expected to be enlarged to include other continental countries, such as Italy and Belgium.

The pharmaceutical agreement involves a division of foreign markets. Switzerland received the lion's share in the Orient, in return for which her sales in France are restricted to the proportion of France's present purchases.

The admission of Germany, while not confirmed, is regarded certain. The agreement is considered very advantageous for French industry.

Maltbie Chemical Co., Newark, contributes a grant for a research fellowship for the coming year to the Department of Chemistry, Princeton University. Research work will be fundamental in character and will cover certain phases of the chemistry of creosote and creosote compounds. Establishment of this fellowship is in line with the policy of the company to extend its research activities and to contribute to a study of the chemistry of important drugs.

Morrison P. Williams, for past thirty-two years associated with the Sheppard Drug Co., Charlotte, N. C., leaves that firm to become connected with Sterling Drug Co.

Jack & Jill Health Products, New York makers, of Jack & Jill Toothpaste for children, appoints Central Advertising Service, New York, to direct its advertising account.

Milky-Way Co., Chicago, cosmetics, appoints Weston-Barnett, Inc., Chicago to direct advertising.

Nauheim Chain Extended

Nauheim Pharmacies, Inc., is formed by a merger of 26 pharmacies in the metropolitan district of New York. The new chain was formed about the nucleus of Nauheim Pharmacies Co., established in 1878. A. M. Stoller, general manager of the latter company since 1906, is president and general manager of the new consolidation, which was organized through the instrumentality of Harry Cooper, Cooper & Cooper, New York.

The stores which form the operating group have been in operation on an average of more than fifteen years and possess leases for an average of nine years more. They were selected for their professional standing, volume of sales, desirable locations, favorable leaseholds and adaptability to further development under chain store merchandising direction.

Sales of the twenty-six stores included in the merger amounted to $2,776,219 for the year ended December 31, 1927, an average of $106,770 for each store. Central management will be provided for the chain, in addition to wholesale purchasing, inventory control and distribution policies.

This chain was financed by an issue of 45,000 shares convertible preferred stock and 45,000 shares common, underwritten by J. & W. Seligman & Co., New York, and Jackson Storer & Co., Boston. Preferred is priced at $37.50 a share and accrued dividends and common at $28.50. Preferred is convertible, share for share, into common on or before May 1, 1938.

Temporary headquarters of this company are with Cooper & Cooper, Inc., New York, but several options are held on central management and warehouse space in the vehicular tunnel section, New York City, on which a lease is expected to be closed very shortly.

Liggett Drug Stores, a unit in the United Drug branch of Drug, Inc., buys the seven Buck & Rayner drug stores in Chicago, at reported prices of $2,548,000.

Financing of the purchase will be arranged by the transfer to the Liggett unit of sufficient stock in Drug, Inc. The parent concern, recently formed by the merger of the United Drug Company and Sterling Products, Inc., has applied for the listing of 28,000 additional shares of stock on the New York Stock Exchange. This stock will be used in the Buck & Rayner deal.

A move to investigate the practices of chain-store organizations to determine if they constitute a violation of the Federal Anti-Trust Laws is introduced in the House April 18, by Representative Stobbs, Republican, Massachusetts.

The measure would instruct the Federal Trade Commission to investigate chain-store organizations "in reference to the purchase and the sale of merchandise and whether such practices constitute a violation of the Federal Anti-Trust Laws."

A favorable report on the so-called "Kelly-Capper" bill is recommended to the House Committee on Interstate and Foreign Commerce in a majority report of the sub-committee to which the bill (H. R. 11) had been referred.

The majority report contemplates a slight amendment to the bill, which the subcommittee proposes.

Professor, Buenos Ayres, in addressing the French Academy of Sicence, express fear that the tuberculosis vaccine, "BCG" developed by the French scientist, Dr. Calmette, might result in infection of children to whom it might be applied. Dr. Calmette replies that 80,000 children in France, 6,000 of whom were born of tubercular mothers, and not one have been affected.

Herman Brooks, sales manager and director, Coty, Inc., New York, visits the Paris headquarters of the company.

Dr. J. B. Knighton, Minden, La., is preparing to market a new tooth powder which he has invented, according to reports.

Distribution Survey Starts

A study on a nation-wide scale of marketing and distribution methods and problems is to be started at once in New York and will be extended later into other parts of the country, under plans made public April 19, by Dr. Julius Klein, Director of the Bureau of Foreign and Domestic Commerce.

John M. Hager, who has had charge of the market surveys in the Domestic Commerce Division, will go to New York to assume direction of the work. That city has been chosen as the starting point because most of the large firms engaged in national distribution are located there.

The survey is expected to give a cross-section of distribution conditions for the whole country and will pay particular attention to those conditions that make for waste in distribution.

Department of Commerce has estimated that there is approximately 10 per cent. of waste in present distribution methods that can be eliminated.

Narcotic Export Bill

A bill to give narcotic preparations, exempt under the Harrison act, a similar status in export trade is before the Committee on Ways and Means, House of Representatives. It was introduced by Representative John F. Miller, Washington, co-author of the Miller-Jones act, which regulates the import and export of narcotic drugs.

The committee has referred the bill (H. R. 12690) to the Federal Narcotics Control Board. L. G. Nott, secretary of the board, says that the measure has been considered at one meeting of that body, and will be further considered before a report is made to the house committe.

Export permits, required under the Miller-Jones act, would not be necessary, under the proposed amendment, for the exportation of preparations to which the Harrison act does not apply, when exported for medicinal use and not for the purpose of evading the purpose and provisions of the Miller-Jones act. The amendment has been introduced largely as a result of efforts on the part of the American Drug Manufacturers' Assn. Carson P. Frailey, secretary of the association, has asked for an early hearing before the committee on ways and means.

Charles H. La Wall, dean, Philadelphia College of Pharmacy and Science, is tendered a dinner in his honor at the college, on his fifty-seventh birthday, May 7. A bust of Dr. La Wall was presented to the college and it was announced that he had been awarded the Remington Medal for distinguished work in pharmacy. His recent volume, "Four Thousand Years of Pharmacy," the first comprehensive work on that subject won him the award.

The use of eucalyptus oil as a denaturant for imported olive oil is permitted in an amendment to article 430 of the customs regulations of 1923. This section provides that olive oil may be imported duty free for mechanical or manufacturing purposes if denatured so as to be unfit for food. The amendment adds to the list of approved denaturants the addition of 12 ounces of full strength eucalyptus oil to 50 gallons of olive oil.

Norda Essential Oil and Chemical Co., New York, opens Chicago office at 500 N. Dearborn st. under direction of H. C. Bartold and Otto J. Cohen.

R. Hilliers' Sons Co., crude drugs, New York, reports estimated damage by fire to the company's Jersey City warehouse of $30,000.

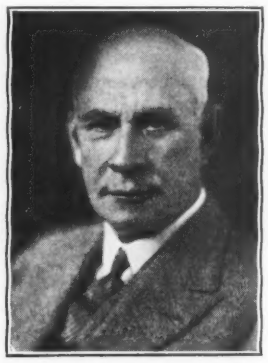
Pfaltz & Bauer, Inc., New York, are appointed sole American agents for Dr. F. Wilhelmi, Leipzig, Germany, oldest and largest manufacturer of chlorophyll.

Marcel Guerlain, Inc., N. Y., appoints The Wesley Associates, N. Y., to direct advertising of Marcel Guerlain perfumes.

Proprietary Association Institutes Technical Section

To Study Container, Raw Material, and Finished Products Efficiency - New Section on Foreign Trade also Formed - Meeting Well Attended - Frank Blair and Other Officers Reelected.

Outstanding in the activities of the Proprietary Association during its annual meeting held at Hotel Pennsylvania, New Technical Section. The needs for this move was stressed by the president of the association, Frank A. Blair, who called attention to the fact that the Proprietary Association representing the foremost group of manufacturers of proprietary medicines, could not afford to be the least behind if technical knowledge. Such subjects as the efficiency of packages, the merits of various drugs, fine chemicals, essential oils, and other ingredients of medicines, must be studied in the light of the latest developments. This marks a new departure for this association, since there has heretofore been no clearing house for this information. Each manufacturer formerly conducted what technical research he saw fit and did not necessarily pass it on to his competitors.



Frank Blair

The technical representatives of the manufacturers met in the hotel on the evening of May 8 and decided that the technical section was necessary. President Blair immediately named Philip Heuisler, of Emerson Drug Co., Blatimore, chairman of the executive committee of the section. The Vice-chairman and secretary of the committee were not named by the President at that time. The committee will hold its first meeting within 90 days of the annual meeting just held, and will thereafter meet at least once a year.

Foreign Trade Section

Another innovation in the form of a new section of the association was the creation of a Foreign Trade Section to study conditions in the Latin-American countries for merchandising proprietaries. The entire afternoon session of the first day of the meeting was spent in a general discussion of the problems of foreign trade, and a meeting of those particularly interested was held at 9 A. M. the following morning.

At this special meeting the formation of the section was adopted. It will function as a department of the Proprietary Association and will finance itself by support from those deriving benefits from its operation. The section will meet within 30 days of the close of the meeting just held, and future meetings will be decided at that time.

J. A. Mitchell, of Henry K. Wampole & Co., Philadelphia, was named chairman of the section. Frank A. Blair was also named on the executive committee. These two men are to name one other member of the executive committee. It is thought that a sub-committee will be named for each of the Latin-American countries.

General Meeting

The general meeting opened Tuesday, May 8 with a heavy attendance. The morning was spent principally in listening to the president's address and the representatives of other associations.

The change of public opinion toward proprietary medicines was stressed by Mr. Blair in the president's report. He stated that the increase in sales for many years past has been proportionately greater than the increase in population. He also called attention to the fact that in the not far distant past, the leading proprietary medicines were owned by a few families. To-day they are owned by great corporations representing many stockholders all over the country. The financial interests of the country are now vitally concerned with the plans of proprietary manufacturers, and the financial papers and magazines were in touch with Mr. Blair prior to the meeting in order to find out if anything affecting the proprietary stocks was contemplated.

The good wishes of the various associations in the manufacturing, wholesaling and retailing branches of the drug industries were brought by the following representatives: C. W. Holton, A.Ph.A.; C. Mahlon Kline, N.W.D.A.; Dr. Bradbury, F.W.D.A.; S. B. Penick, A.D.M.A.; S. C. Henry, N.A.R.D.; Dr. E. L. Newcomb, Druggists Research Bureau; E. H. Hessler, A.Ph.M.A.; Leo. G. Ryan and C. H. Radcliffe, British Proprietary Association.

Rather mild pleas for corporation with the jobbers and independent retailers were made by representatives, and the discussion did not evoke any great interest and was not as spirited as at last year's meeting.

Following this, Dr. Paul B. Dunbar, of Bureau of Chemistry, spoke on the work of his department with reference to proprietaries. He was followed by Dr. George W. Hoover, resigning Chief of Drug Control, and by Dr. James J. Durrett, successor to Dr. Hoover.

Interest in Foreign Trade

The afternoon session which took up foreign trade was opened by President Blair calling various men in the association to tell their experiences. The discussion was in engaged in by Carleton Riker, Sidney-Ross Co.; John Newkirk, the Chattanooga Medicine Co.; Frank Sanborn, Sanborn-Hermanos, manufacturers' representative and jobber in Mexico City; T. Boyer, Smith, Kline & French; J. A. Mitchell, Henry K. Wampole & Co.

T. W. Delehanty, Department of Commerce, who has addressed the association on foreign trade for the past four years, was again on hand with interesting facts and figures, as well as with advice in foreign trade. He stated that he was firmly convinced that no definite saturation point exists for consumption of American medicinal and pharmaceutical preparations in foreign markets. He called attention to the fact that last year American firms lost one-eighth of their trade in Canada, Mexico, and Cuba—a loss approximately $600,000. This was offset by equal gains in South America and the Far East—more particularly—Argentina 11%; Columbia 11%; Venezuela 15%; India 22%; and Japan 30%. These five countries represent one-fifth of our foreign medicinal trade, and in Columbia we supply 80% of the imports. In these five countries and five others which formerly took at least $100,000 value of medicinals annually, American producers in the past three or four years have doubled their sales. There are fifteen major outlets which are as well strategic locations, stated Mr. Delehanty, where practically any concern should be able to maintain an office and their own promotor. If these branches are supported to the same degree as a domestic branch, the trade should mount in volume.

Following the discussion on foreign trade, Fred C. Arner, The Arner Co., Buffalo, told of how he had been approached by field representatives of the Food, Drug & Insecticide Administration to reveal the formulas of medicines made his company for others. He told of being threatened with suits. He also told of how these representatives had gone to his clients and demanded the formulas of medicines that the Arner Co. made for them, stating that "they were checking up on The Arner Co.

Dr. George W. Hoover, answered Mr. Arner's complaint, stating that these men were not acting under instructions from the Washington office since the Government had no right to

demand that a formula be revealed. The extent of Government authority is limited to inspection of the finished goods which can be bought at any store.

Second Day

The second day was opened with the report of the general representative, E. F. Kemp. Mr. Kemp reported no outstanding features during the past year, but great progress. He called attention to the fact that membership in the association was highly prized by firms in the trade, and that it had become to be regarded as a franchise. However, he stated that the Proprietary Association is not a closed organization and urged that new members be secured. There are many reputable firms not members who would have no difficulty passing the inspection of the requirements committee and being admitted to membership. The requirements committee must pass on the products and literature of a firm before they are passed upon by the membership committee.

The afternoon session of the second day opened with a general discussion of the advantages and disadvantages of radio broadcasting as an advertising medium. Mr. Blair spoke of the trial given by the Centaur Co. on Castoria in which two and one-half minute talks were given on the care of infants, broadcast in both French and English. Many requests for booklets were received, but the company did not know whether it was paying or not and discontinued.

Phillip Heuisler, Emerson Drug Co., stated emphatically that radio advertising does pay. He stated that his company received from 30 to 40 requests for their booklet per week. He stated that by this means many people are reached who are not accessible to any other medium. Another firm was the first to use the transcontinental hook-up and received 18,000 letters and 1,100 telegrams within 11 days. Several other manufacturers reported giving radio a trial, but they didn't know whether it paid or not.

Following this discussion, Harry B. Thompson, general counsel for the association, rendered his report. Outstanding in this report, as in the reports of other officers, was the fact that there has been no change in the merchandising laws of any State in the Union during 1927 or 1928.

In Federal legislation, Mr. Thompson called to mind the vicious character of the Copeland and A.M.A. cosmetic bills, stating that failure of proof of injury, absence of public necessity and lack of public demand have prevented the advancement of the bills. State cosmetic bills failed of passage in Wisconsin, Massachusetts and New York.

Mr. Thompson sees no reason why members of the association should not support the Capper-Kelly Bill.

With reference to the Haugen Slack Package Bill, Mr. Thompson stated that it was only directed at food products. However, the drug industry is indirectly interested since it might be extended to drug products at some future date if passed.

The present Prohibition Commissioner is a law-abiding citizen, stated Mr. Thompson, in conveying the thought that the Commissioner was anxious to enforce the laws as they stand on the statute books, and not anxious to enforce ideas of his own as to what the law should be.

Upon the subject of restricted sales, Mr. Thompson stated that when legislation restricting sales of products to registered pharmacists or anyone else were for the public good, they should be passed, otherwise not. The sales of most proprietary medicines calls for ability to read the label and make change. There is no special knowledge required since the task is merely one of merchandising. When buying from a registered pharmacist, the purchaser is paying something for the pharmacists' knowledge and training, and it is not necessary to buy this knowledge with proprietaries.

Officers were re-elected as follows: Frank A. Blair, president; E. K. Hyde, first vice-president; James H. Howe, second vice-president; Charles P. Tyrrell, secretary-treasurer; Harry B. Thompson, general counsel.

Eric Drake Succeeds Dr. Reddish

Dr. George F. Reddish, who severed his connection as bacteriologist of the Food, Drug & Insecticide Administration of the Department of Agriculture to accept a like position with Hynson, Westcott & Dunning, Baltimore, has returned to the Government service. Dr. Reddish has returned in a like position of bacteriologist but in a position of far greater scope than included in the position he resigned slightly over a year ago. He has charge of all the bacteriological laboratories of the Food, Drug & Insecticide Administration.

Dr. George F. Reddish

Eric Drake, formerly in this country on a fellowship from England, is now with Hynson, Westcott & Dunning, in the position of bacteriologist formerly occupied by Dr. Reddish.

District Court of Massachusetts dismisses suit brought by No-D-Ka Dentrifice Co. against S. S. Kresge Co., charging infringement of trade mark "No-D-Ka", because of defendant's use of the mark "Nodeca" to be used on the same class of goods, on the ground that the plaintiff did not have exclusive use of the mark since the mark was descriptive. Court held that plaintiff has no right to exclusive use of the mark since the mark indicates "no decay" which describes the effect that comes from the use of the tooth paste; and that the exclusive use, as a trade mark, of a misspelled word or a combination of misspelled words, will not be saved if the words correctly spelled are obnoxious to the rule of descriptiveness.

In case of Coty, Inc., v. Leo Blume, Inc., the Circuit Court of Appeals, Second Circuit, decides that where the defendant had agreed to give up and never become connected with in any manner any business which includes the rebottling or resale of the plaintiff's perfumes sold under the mark "Coty," such an agreement is enforceable and defendant enjoined from villating the same. On the other hand, the court held that the purchaser of a trade marked article may combine it with other ingredients and sell the compound under a truthful label and such conduct violates neither the rights of the owner of the registered trade mark, nor without more, the rules of fair competition.

Appraisal of the estate of John N. Larkin, founder of the Larkin Co., who died in 1926, filed in Surrogate's court of Buffalo, reveals that his estate amounted to $6,394,615. Under terms of the will, the estate was divided among two daughters and two sons. Ruth L. Robb, a daughter, will receive $1,697,334 and the other children, Frances L. Esty, John D. Larkin, Jr., who succeeded his father as president and treasurer of the company, and Mary H. Larkin, vice-president and assistant treasurer, will receive $1,347,334 each.

Circuit Court of Appeals, Fourth Circuit, affirms decision of U. S. District Court, Maryland, finding the United States Industrial Chemical Co., Inc., and the Sterno Corp. had infringed the two Schaub patents belonging to the Theroz Co.

Tokio Hygienic Laboratory of the Japanese Home Department plans to enlarge facilities on the farm at Kasukabe for the cultivation of medical plants and crude drugs.

H. K. Mulford Co., Philadelphia, announces a new serum for Malta fever, "Antimelitensis Serum Polyvalent."

A. M. T. A. Hears Doran and Klein

Handy Elected President and Mulster Secretary-Treasurer For Coming Year—Over Two Hundred Attend Annual Gathering—Banquet and Dance Feature Entertainment Program.

American Manufacturers of Toilet Articles holds thirty-fourth annual convention at Hotel Ambassador, Atlantic City, May 7, 8 and 9. Newly elected officers are president, John A. Handy; first vice-president, H. Henry Bertram; second vice-president, V. C. Daggett; secretary-treasurer, Daniel J. Mulster. New members of the executive board are C. M. Baker and Fred S. Rogers. Gilbert Colgate, W. L. Schultz, F. C. Adams and E. G. Thomssen were re-elected to the board.

The convention opened May 7th, with the first business session. C. M. Baker, president conducted the meeting and in his address, emphasized that a united front was necessary to combat cosmetic legislation. He told how the association had fought absurd and harmful statements regarding the effects of use of toilet articles.

H. Henry Bertram, secretary-treasurer, announced membership now totaled 201, including 84 active and 107 associate members.

Dr. Julius Klein, director, Bureau of Foreign and Domestic Commerce, Department of Commerce, told of the growth of the toilet goods industry so that to-day production amounts to $200,000,000 annually, with an export trade of $12,000,000. He pointed out that the export field was still one which could be profitably developed, despite native competition, government restrictions and regulations, prohibitive or discriminatory tariffs and scantly educated customers.

The first session closed with an address by Sylvester Muldowny, Lehman Bros., New York, on "The Impelling Trend Toward Consolidations." He said that distribution is now the primary problem of the toilet goods field. The manufacturers have been depending upon the independent retailer, but now the chain store is coming rapidly to the fore, thereby complicating his distribution problem.

Following an executive session at 9.30 A. M. on May 8, at which time William L. Crounse, Washington representative, and Abel I. Smith, counsel of the association reported on legislative and legal activities the second business session was held. E. V. Killeen, George F. Lueders & Co., read a paper by George F. Lueders on "Perfumery; Its Raw Materials and Their Application." In his paper, Mr. Lueders outlined some of the developments in perfumery raw materials during the past fifty years, especially as regards the influence of chemistry in manufacture and in sophistication.

Dr. Curt P. Wimmer, Columbia University, spoke upon the experimentations he is now conducting in the application of ultra-violet rays to the testing of essential oils, aromatics and cosmetics. He said that in a year or two he expected to have results which will revolutionize the testing of toilet articles.

The second session was concluded with an address by Dr. E. G. Thomssen, J. R. Watkins Co., Winona, Minn. on "The Manufacturing Viewpoint." He pointed out the fact that the manufacturer of toilet articles cannot apply mass production standardization and division of labor, to the same extent as in other industries due to the fact that the product must make an aesthetic appeal and to constantly changing tastes and styles. Certain economies must be applied, however, because of the constantly increasing selling costs. Some of the things suggested by Dr. Thomssen to attain these economies in manufacturing costs were simplification of packages, co-operation among manufacturers, insistence upon pure perfume oils and raw materials, more organized research work, deletion of exaggerated claims from advertising, and ceasing to use negative implications on packages or in advertising.

At the final business meeting on May 9 at 10.00 A. M., there was considerable discussion regarding the proposed increase in tariff on all imported hand-made glassware. It was pointed out that such an increase would lead to general increase in prices on bottles and increase the price of every package of toilet articles. It was decided that the executive board appoint a committee to meet with some of the American manufacturers of bottles in an effort to work out a solution to this problem.

Dr. James M. Doran, Commissioner of Prohibition, Washington, D. C., summarized the work of the administration during the past year. He spoke of the Advisory Board and pointed out that its purpose was to have full conference in all matters of major importance effecting the users of alcohol before making decisions. He emphasized that the purpose of the prohibition administration is to further the lawful use of alcohol and that there would be no experimentation at the expense of users of industrial alcohol.

The session concluded with the passing of resolutions and the election and installation of officers.

Despite unfavorable weather, the convention committee, L. S. Levy, chairman, arranged an entertainment program thoroughly enjoyed. The men's golf tournament on Tuesday

Members of the A. M. T. A.

View of the banquet of the A. M. T. A.

and Wednesday afternoons attracted a long list of entrants despite the fact that rowboats were almost necessary on Wednesday in order to get around the course. Prize winners were A. F. Kammer, S. H. Cocoran, C. A. Ellis, R. C. Hefferan, A. D. Armstrong, E. M. Kaylor, W. L. Schultz, W. B. Swindell, Jr., A. D. Henderson, R. Reinhart, A. H. Wirz, J. H. Mayesby, W. L. Young, C. Lightfoot, C. M. Basec, and P. R. Dreyer.

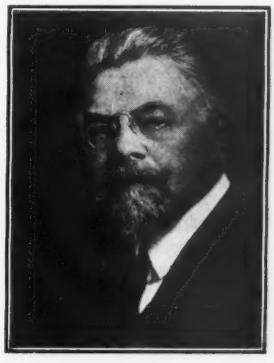
While their husbands splashed about on the links, the ladies played bridge. Prize winners on Tuesday afternoon were Mrs. Killeen, Mrs. Fischer, Mrs. Rinke, Mrs. de Hoyes, Mrs. Kaylor and Mrs. Paul. Those who won on Wednesday afternoon were Mrs. Armstrong, Mrs. Langlois, Mrs. Levy, Mrs. Colcord, Mrs. Miller, Mrs. Bergman, and Mrs. Fischer.

The trap-shooting contest was won in a high wind by I. W. England with 39 out of 50 and William Mennen, with 37.

Monday night a theatre party was held at the Apollo Theater, followed by a buffet supper and dance in the Renaissance Room of the hotel with music by the Seaside Serenaders. So much enthusiasm was aroused by the dance and the informal singing on the sun-porch afterwards that another dance was arranged for the following evening in the Grill Room.

The big social event of the convention was the banquet and dance in the Renaissance Room on Wednesday night with music by the Ipana Troubadours, furnished through the generosity of the Sun Tube Co., Hillside, N. J., and the co-operation of Bristol-Myers Co., New York. At the banquet both the retiring and the newly-elected president gave short addresses, followed by the presentation of prizes by W. B. Swindell, Jr., and C. Kelly. The dance which followed brought the party to a close with much evidence of good spirits.

Chicago Perfumery, Soap and Extract Association holds annual dinner dance at the Midland Club, April 18. Committee consisted of C. A. Seguin, C. A. Seguin Co., chairman; Donald M. Clark, Franco-American Hygenic Co.; A. J. Dedrick, Edward T. Beiser Co.; Roy F. Downs, Illinois Glass Co.; and S. J. Davies, Tin Decorating Co.



Being honest wins in the long run, has been proven in the case of P. R. Dreyer, who was awarded a brief-case as a prize for the title of "The Most Honest Golfer" at the recent A. M. T. A. convention at Atlantic City. The fact that Mr. Dreyer is an honest golfer is proven by the fact that he turned in the largest score, reaching a total of 207 strokes for a mere 18 holes.

One of the interesting features of the convention was a visit to the plant of T. C. Wheaton Co., at Milleville, N. J., where a number of the delegates were conveyed by automobile to see the manufacture of glass and the blowing and decorating of glass bottles.

as viewed on the Boardwalk

Herb Juice Medicine Co. Ordered to "Cease and Desist"

Federal Trade Commission orders Herb Juice Medicine Co., Jackson, Tenn., to discontinue unfair methods of competition tending towards maintenance of resale prices, it was announced April 24. The announcement in full text follows:

While evidence on record does not show that the company actively employed the unfair practices charged in the Commission's complaint later than June, 1926, the Commission says in its findings:

"The Commission finds upon the whole record that there is a dangerous probability that the respondent will in the future resume said methods and practices unless restrained by the Commission."

The Commission noted in its findings that the company, in answering the Commission's complaint, did not plead abandonment of the methods charged, but denied any unfair methods of competition had ever been employed by the respondent.

Methods of unfair competition prohibited by the Commission in its order are as follows:

Entering into contracts, agreements or understandings with any dealer that respondent's products are to be resold by such dealer at prices specified or fixed by respondent.

Producing, or attempting to procure, by threats, or otherwise, promises or assurances from any dealer that the prices fixed by respondent shall be maintained by such dealer.

Procuring, or attempting to procure, by threats or otherwise, agreements, promises or assurances from any jobber that such jobber shall refuse to sell respondent's products to retailers not maintaining the price specified or fixed by respondent.

Requesting dealers to report the names of other dealers who do not maintain respondent's resale prices or who are suspected of not maintaining the same, or in any manner enlisting the cooperation of dealers in the maintenance of any resale prices specified or fixed by respondent.

The retail price of the medicine was fixed at 98 cents and one dollar a single bottle or $2.50 for three bottles. The company announced its policy was not to sell to dealers who cut the prices below these figures. Frequently, through its agents and by correspondence, the company demanded and obtained as a condition of future sales, agreements from dealers, especially from those dealers reported to be price cutters, to maintain the retail prices fixed by the company. Shipments were denied to jobbers who sold to retailers deviating from the established prices, unless such jobbers would agree not to sell to such retailers. Such agreements were in some instances obtained, and the price cutters' source of supply thereby cut off.

Herb Juice Medicine Co. sells and distributes throughout the United States its product known as "Miller's Herb Juice," a proprietary medicine compounded and advertised to be curative or alleviate of constipation, backache, loss of appetite, indigestion, biliousness, nervousness, liver trouble, weak kidneys, tired physical condition and kindred ailments. It is manufactured from a formula owned by the company.

Prior to 1925 the company manufactured and sold the herb juice to a limited extent but in that year began to advertise extensively and adopted and began to enforce a merchandising system of fixing and maintaining specified uniform prices.

Twenty-four retail stores, twenty-one of which are in Seattle, are merged into a new chain by F. T. Jamieson and Roscoe B. Doane. The stores are to be operated in a manner to the J. C. Penny stores, each store being incorporated separately and the manager allowed to buy up to 49 per cent. of the stock. The holding company always retains a controlling interest, but after the manager has bought 49 per cent. in one store, he is allowed to buy into other stores. The firm plans to operate, for the present at least, largely in the residential districts.

Bye Vice-President of Merrell

Mortimer Bye, scientific director, The William S. Merrell Co., Cincinnati, is elected second vice-president of the company.

Since his graduation in 1901 from Johns Hopkins University, he has been closely allied with the chemical and pharmaceutical business. His first position was in the scientific laboratories of Sharp & Dohme, Baltimore, where he remained for five years. He then accepted control of the laboratories for The William S. Merrell Co., in which capacity he continued for over six years, leaving at the end of that time to go with Eli Lilly & Co., Indianapolis, where he spent a period of nearly five years.

His next move was to the scientific directorship of the Frederick Stearns Laboratories, Detroit, which position he held for over nine years. From there he went to his present position with the Merrell organization. He has been especially interested in the development of benzyl compounds, Insulin, and other therapeutic agents.

F. W. Fitch Expands

Des Moines, Ia.—Production of the F. W. Fitch Co., toilet articles, will be materially increased with the completion of a new $50,000 unit, 66 x 120 feet, one-story and basement, across the alley from the present four-story plant at Fifteenth and Walnut streets. Work upon the new unit will be started as soon as details of the building are completed, according to F. W. Fitch, president of the company. The new unit will be devoted to manufacture of shaving creams, shampoos, base soap bases and saponifying oils used in the Fitch products. Mr. Fitch reports that the number of employees has been increased 25 per cent. in recent weeks to meet increased sales and demand, and that with the new plant a force of 150 will be employed. The new unit will be connected with the old plant by a tunnel, 8 x 10 feet, and adequate trackage and trucking facilities are included in the building plans.

New Abbott Products

Research Department, Abbott Laboratories, announces two new pharmaceutical products to be presented immediately to the medical profession. The first is "Elixir of Ephedrine." According to the announcement, this is a pleasantly flavored, palatable fluid preparation containing ⅛ of a grain of ephedrine to the fluid dram, thus permitting the oral administration of finely divided doses of the drug in asthma and hay fever. One teaspoonful of "Elixir of Ephedrine," Abbott, contains ⅛ of a grain of ephedrine hydrochloride; one tablespoonful, ½ grain. Required dosages can easily be adjusted. The preparation is supplied in 4-oz. and 16-oz. bottles.

The second new product is "Cinchopyrine", a combination of cinchophen, amidopyrine, calcium carbonate and colchicine, for the treatment of acute rheumatism, gout, and arthritis. Cinchopyrine will be marketed in boxes of twenty and bottles of 100 tablets.

Sales of Walgreen Co. for quarter ended March 31, 1928, new stores included, were $6,532,519, against $4,448,469 in first quarter of 1927, an increase of $2,084,050 or 46.8%.

Lehn & Fink, Inc., declares regular quarterly dividend of 75 cents a share on common and 7½ cents a share on management stock, both payable June 1 to stock of record May 15.

Judge Favors Chain Stores

Grants Permanent Injunction—Declares Public Has Not Suffered From Chains—Declares Regulation of Chain Stores Not in Public Interest.

The chain store method of merchandising won an important decision when Judge Albert A. Daub in the Circuit Court of Allegany County, Md., granted a permanent injunction restraining the enforcement of Chapter 554 of the Acts of the General Assembly of Maryland as being repugnant to the Constitution. The act imposed a special yearly tax on chains of six stores or more.

In declaring the act unconstitutional Judge Daub said in part:

"It is not shown why the interest of the public, as distinguished from a particular class, requires that chain stores be regulated. The jobber and wholesaler may be interested in some form of regulation or elimination of competition, but the evidence does not show that the public have been damaged by chain stores or their methods of operation. And even if the welfare of the public demanded some form of regulation this act wholly fails to provide any regulation at all. It is an act to check and destroy, to eliminate competition in foodstuffs rather than to promote competition in the interest of the general public, the consumers.

No Restriction of Competition

"In this case, no contracts have been revealed that in any way tend to restrict competition and trade, and the Act on its face shows it was not intended to prevent monopoly and could not have such an effect. It has long been a criminal offense at criminal law to obtain a monopoly of a prime necessity of life, but neither the civil nor the criminal law can outlaw a class of retailers merely because they are acquiring by efficient methods of business a large proportion of the retail grocery business of the country to the immediate advantage of consumers, especially if freedom of competition and trade exists among all chain stores and independent merchants.

"Looking at the community as a whole, with the general knowledge of which the court takes judicial recognition, the chain stores, by purchasing direct from the manufacturer and the producer and eliminating the profits and expenses of the wholesaler, jobber and broker and the cost of delivery, and selling for cash and thereby escaping the usual losses resulting from sales on credit, are more likely to give to the farmer, truckman and consumer part of the middleman's profit and so to become a blessing to society and the public generally. Indeed, the very elements so earnestly insisted upon by the defendants as a justification for this extra license fee are the very elements that would seem to justify the development of the chain store.

No Sinister Practices Revealed

"The testimony does not disclose that there is anything sinister about their practices foreboding any evil to the public which can be anticipated, but it does show that the chain stores are cleaner and more sanitary than others; that they are conducted with skill and efficiency; that they do not delude the buyer into purchasing goods by giving him credit when he is unable to pay for them; that they turn over their stock more rapidly than other stores and do not keep on their shelves goods long enough to deteriorate and become unwholesome or impaired in quality and that through them the tendency is to reduce the cost to the consumer.

"With the rapid development of means of transit and the increase in the number of automobiles, now owned by almost every family in the county, delivery of goods by the merchant is no longer so necessary, and the buyer can save something of the cost of operating his automobile by saving the expense of delivery. Moreover, chain stores help to insure regular rentals, furnish regular employment, stabilize the value of real estate and spend a large part of the proceeds of their sales in the community.

"Freedom of trade without interference on the part of the state always develops competition and this will protect the consumer

(Continued on page 470)

Dr. Hoover Resigns

Dr. George W. Hoover, chief, drug control division, Food, Drug and Insecticide Administration announces his resignation, effective May 15, after 24 years spent in Government service. He has opened offices in the National Press Building, Washington, D. C., for consultation and advice on formulae, labels, advertising matter and technical control of drugs medicines, foods and other products under the Federal Food & Drug Act, Federal Caustic Poison Act and State laws.

Dr. George W. Hoover

Dr. Hoover has been with the Bureau of Chemistry, Department of Agriculture, since the passage of the Federal Food & Drug Act in 1906. During the early history of the act he was, for several years, in charge of the Drug Laboratory. In 1914 he was made chief of the Chicago Food & Drug Station, and in 1923 returned to Washington to take charge of the Drug Control Laboratory in Washington.

In 1926 he became chief of the Central Food and Drug Inspection District, where he directed all the work of six Food and Drug Inspection Stations located at Chicago, Minneapolis, Kansas City, St. Louis, Cincinnati and New Orleans. He later returned to Washington again to a temporary assignment as chief of drug control, which position he was occupying at the time of his resignation.

Dr. James J. Durrett, Memphis, Tenn., succeeds Dr. George W. Hoover in charge of drug control, in the Food Drug and Insecticide Administration.

Doctor Durrett was graduated from the University of Alabama in 1908, and had subsequent postgraduate work at that institution and study leading to the degree of M. D. at Harvard in 1914. He has been identified with public health work in the South and since 1920 has been city supervisor of health at Memphis and professor of public health at the University of Tennessee. He will assume charge of drug control early in May.

Quinine Trial Coming

Assignment of a place on the court calendar for trial of the libel of information in the action of the United States in the seizure of 383,340 ounces of quinine derivatives will be the next step of the government in its actions against the operations of the Kina Bureau in this country. First seizure was made on or about March 23 in the warehouse of R. W. Greeff, Inc., New York (DRUG MARKET April 1928). Acting for that company, attorneys May 1 served notice on Federal officials to the effect that the company would defend the action through which the Government seeks forfeiture of this quinine, the New York corporation acting as agents for R. W. Greeff & Co., Ltd., London, owners of the material. Crowded condition of the court calendar makes the trial a matter of the indefinite future.

Two other lots of quinine seized at Hoboken at the pier when goods were landed, will also have libels of information filed in the New Jersey courts as soon as custom officials have completed the inventory. It is expected that the three libels will be joined in a single court action.

Eucalyptus Oil Distributing Co. erects two stills, one of 1,000 gallons and the other of 800 gallons capacity, on the Red Hill state forest, near Tumut, N. S. W., for the distillation of eucalyptus oil.

Company News

Health Products Corp., Newark, installs an aviation beacon on its factory water tower, 135 feet above the ground. This huge light shines from sunset to sunrise, and completes one revolution every two minutes. The beam has a projection of two miles which means that the ray at its extremity develops the staggering velocity of slightly over six miles per minute.

The beacon, although erected, owned and operated by the Health Products Corp. is under the supervision of the Airways Division of the Department of Commerce at Washington, D. C., and is charted on aerial maps in the same way that lighthouses are shown on mariner's maps. The light is directly in the course of the Boston mail plane which passes over the factory shortly after ten o'clock each night.

Bonyata Laboratories, which have been operating in Grinnell, since their establishment two years ago, will be transferred to Marshalltown, Ia., Victor Linberg, general manager, estimated that production would be under way in two months. Coincident with the transfer, the Bonyata company will extend its middle west distribution into the national field, planning a country-wide advertising campaign upon two of its products in its first bid for nation-wide sales. The concern produces a variety of 37 cosmetics, shampoo preparations, tonics, liquid soaps, janitor supplies, disinfectants and similar articles. The company has a $25,000 capitalization. Charles Bonyata is inventor of the formulae used and salesmanager of the concern.

American Chemical Society, at its closing meeting in St. Louis, April 18, announces gifts aggregating $360,000, for "co-operative service in recording and indexing through the society's publications the chemical literature of the world." The Chemical Foundation, Inc., of which Francis P. Garvan is president, gave $250,000, the largest single contribution ever received by the society. The remaining $110,000 came from the industries, among which a leading donor was the Allied Chemical and Dye Corp., of which Dr. William H. Nichols, a charter member and past president of the society, is chairman of the board.

About eighty retail druggists, members of the Cincinnati Guild of Hy-Pure Druggists, plan to organize the Hy-Pure Stores, Inc., capitalized at $100,000 to open and develop a chain of new drug stores in Cincinnati and vicinity in addition to stores already operated by members of the Guild. Directors are Emil Kraft, Walter Wetterstroem, Arthur Sarsfield, Samuel Joseph, John S. Beatty, Edward Voss, Jr., and Charles Ehlers. Present Hy-Pure laboratories are at 1122 Walnut st., Cincinnati.

Pro-Phy-Lac-Tic Brush Co. declares an extra dividend of 50 cents on the common, payable May 15 to stock of record May 5, and the regular quarterly dividend of $1.50 on the preferred, payable June 15 to stock of record May 31.

Action on the regular quarterly dividend of 50 cents on common is not due at this time.

Three and six months ago extra dividends of $1 were paid.

E. R. Squibb & Sons establishes a Special Co-operation Department in an effort to save distributors time, effort and expense in arriving at satisfactory solutions to sales and display, merchandising control, accountancy and other similar problems. The department offers to furnish individual answers to all business problems submitted by retail pharmacists.

Board of control, National Wholesale Druggists' Association holds semi-annual session at Hotel Statler, St. Louis, April 25 and 26. The chief topics for discussion were the Druggists' Research Bureau, the association's legislative work, including the Capper-Kelly bill, and arrangements for the next convention to be held at Atlanta, the first week of October.

Merck & Co., Inc., Rahway, N. J., begins an advertising campaign in the May issue of "Hygeia", the lay publication of the American Medical Association, in which it will attempt to arouse the general interest of the public in the prescription pharmacy. In addition to running this series of advertisements, the company is offering material to each individual prescription druggist which will enable him to extend the campaign to his own particular field. The object of the campaign, according to Merck & Co., is to educate the public to discriminate between the prescription pharmacy and the store whose sole purpose is to sell merchandise.

Owens Bottle Co., Toledo, reports net earnings for 1927 after all charges, of $4,605,770, equivalent to $5.82 a share on each of 732,272 shares of common stock outstanding. Consolidated net profit of company for quarter ended March 31, 1928, is reported as $791,777 after all charges, which compares with $1,119,117 in first quarter of 1927.

Company also declares regular quarterly dividends of 75 cents a share on common and $1.75 on preferred, both payable July 1 to stock of record June 15.

Armand Co., Des Moines, Ia., is carrying on chain radio broadcasting every Tuesday evening at 9.30 o'clock, central standard time, over stations KYW, Chicago; WOW, Omaha; KWK, St. Louis; WREN, Kansas City; WFAA, Dallas; KVOO, Oklahoma City; WOC, Davenport; and WHO, Des Moines. The program has a woman announcer known as Mademoiselle Armand and an orchestra composed of Chicago women musicians, known as the Armand girls.

International Proprietaries, Inc., makers of "Tanlac", move into new and larger quarters at Atlanta, Ga., and announce the election of W. E. Welch as vice-president and general manager. Mr. Welch was formerly treasurer of the company. Improved laboratory facilities and modern equipment in this new five-story building will enable the company to enlarge its capacity to 60,000 bottles a day.

L'Ame, Inc., New York, files petition in bankruptcy listing liabilities at $98,267 and assets at $5,296, main item being fixtures, $3,400. Principal creditors listed are William Werner, $3,000 secured; Theo. W. Foster & Bro. Co., $11,107; Tin Dec. Co., $8,282; F. N. Burt Co., $6,830; T. C. Wheaton Co., $8,099; Metal Package Corp., $17,399; and Manhattan Express Co., Realty Dept., $7,260.

Proctor & Gamble Co. plans construction of new soap manufacturing plant in Baltimore, at estimated cost of between three and four million dollars on an eight-acre tract of land, bordering on the waterfront on the north side of Locust Point near the plant of the American Sugar Refining Co., New York. All of the company's brands of soap will be manufactured at the plant, which will employ about 500 workers.

"The Lloyd Library and Its Makers," an historical sketch by the late Dr. Caswell A. Mayo, has been issued as bulletin 28 by the Lloyd Library, Cincinnati. The volume of 72 pages is handsomely illustrated with reproductions of pages of ancient books on drugs and pharmacy, the originals of which are in the library.

Karl Kiefer Machine Co., Cincinnati, announces the removal of its New York offices to larger quarters in the Transportation Building, 225 Broadway. The Chicago office has also moved to larger quarters at 222 W. Adams St.

H. K. Mulford Co. wins the Medal of Honor for its exhibit of pharmaceutical and biological products at the Primer Congresoy Exposicion de Asistencia Publica, held in Montevideo, Uruguay.

Coty, Inc., New York, acquires an interest in Marie Earle, Inc., New York, toilet preparations. Miss Marie Earle continues as president. Oren V. Jones is appointed general manager of Marie Earle, Inc.

Colored Glass in All-Day Session

The problem of the effect of light rays on pharmaceuticals packed in glass bottles received a complete thrashing out as to methods to be pursued toward a solution of the problem at an all-day session at the Chemists' Club, Friday, May 4. The meeting was presided over by Dr. H. V. Arny, College of Pharmacy, New York, Chairman of the Committee of the A. Ph. A. Eight others attended the meeting representing the A. D. M. A.; A. Ph. M. A.; and the Glass Container Association. Those representing the drug and pharmaceutical associations were: Dr. John C. Krantz, Sharp & Dohme, Baltimore; Dr. Fitzgerald Dunning, Hynson, Westcott & Dunning, Baltimore; C. C. Doll, The Zemer Co., Pittsburgh; Dr. F. O. Taylor, Parke, Davis & Co., Detroit; and Coleman Bardos, The Marvell Pharmacal Co., New York. The Glass Container Association was represented by Dr. S. H. Ayres, Glass Container Association Laboratories; F. C. Flint, Hazel-Atlas Glass Co., Washington, Pa.; and Dr. W. C. Taylor, Corning Glass Works, Corning, N. Y.

The meeting for the most part took the form of a round-table discussion, which completely cleared the ground and brought to representatives of the pharmaceutical industry just what their problem is. Necessity for research on the action of light rays on the pharmaceutical products is necessary. However, the relation of light rays of different wave lengths and various shades of glass has been worked out independently by several of the larger glass companies, although this information is regarded as confidential and will not be available to the committee. The Glass Container Association representatives were of the opinion that since they had completed this research on glass, and since they could not studying pharmaceuticals if they wanted to, the next move was up to the drug industry.

The question of the expense of the bottles found suitable was stressed. It was pointed out that a special color of bottle would have to be a special mix and could not be made in the tanks of the larger manufacturers. The expense would raise the price of these bottles so that they might be prohibitive. It might be preferable to cover the bottle with an opaque wrapper.

The fact that at least part of the deterioration might be due to dissolving the glass, and to the air above the liquid, was deemed important. Mr. Doll told of ampules that were satisfactory in one shipment of the glass, but that caused pain to patients when packed in another shipment from the same maker. The filling of a bottle so that no air was above the product in the bottle, had been found, in the experience of many present, to stop a great part of the deterioration.

Mr. Flint stated that the study of the problem must also include a study of the liner in the metal cap.

The Glass Container representatives stated that before they could become interested to the point of the individual glass makers contributing toward research, they must know how much business was involved on the products that are affected by light rays.

The necessity for research finally took the form of a motion to "endeavor to raise a fund for a fellowship, to work under the direction of Dr. Arny and Dr. Ayres."

In order to raise the money for this fellowship, Dr. Arny, acting on a motion, appointed a committee of three from the three pharmaceutical associations represented. C. C. Doll, A.Ph.M.A., chairman; Dr. Fitzgerald Dunning, A.Ph.A., secretary; and Dr. J. C. Krantz, A.D.M.A. The work of this committee is to draft and send a letter to the drug manufacturers of the country telling them of the research, asking them their problems, and asking them for contributions to the cause. The committee is also to determine how much of these bottles would be used if they were adopted.

Essential Products Co., Porterville, Cal. is formed for the purpose of operating a new peppermint oil plant understood to have been established in Sacramento, Cal. J. N. Davies is president, and C. F. Ten Eyck is vice-president and secretary.

G. R. Flint Heads Flint-Eaton

George R. Flint, vice-president, Flint, Eaton & Co., Decatur, Ill., drug manufacturers, is elected president of the company, succeeding the late J. G. Flint, his father. Guy C. Taylor, chief chemist, was elected vice-president, and Edna M. Peck, secretary-treasurer. S. Morthland, is the only new member of the board of directors, whose membership has been reduced to seven.

George R. Flint

Mr. Flint was born at Lebanon, Ill., May 19, 1883, and has been vice-president of the company since 1904. He is a member of the American Pharmaceutical Manufacturers Association, serving as director in 1920-21, vice-president in 1922-23, and director 1926 to date.

United Cigar Drug Chain

A drug store chain that will rank second in size to the country-wide chain of the United Drug Co. is to be established by the United Cigar Stores interests through a subsidiary, according to reports. Plans have virtually been completed and the first of the new stores will be opened soon.

About fifteen or twenty of the best-located of the Happiness Candy Stores, which are controlled by the United Cigar interests, will form the nucleus around which the proposed drug store chain will be built. It is intended to convert this number of the candy stores into drug stores, making the candy business a separate department in each.

The chain, it is understood, will be expanded gradually. It will be augmented first, it is expected, by the inclusion of the sixty-four stores operated by the United Retail Chemists' Corp. a United Cigar subsidiary. The United Chemists' drug stores are scattered throughout the country. Details of the plan to consolidate the two groups of stores have not gone beyond the tentative stage, however.

It is understood that the new company will be capitalized at between $25,000,000 and $30,000,000.

Happiness Candy Stores, Inc., will continue to operate as a separate company and will continue to expand. Where it is considered desirable, however, the present candy stores will simply become departments in the drug stores, offering the same service and line of products as at present. The Happiness Candy chain now consists of about eighty stores. Sixty-three contain soda fountains, while five have a complete restaurant service.

For the present the drug store subsidiary will concentrate on the territory in and around New York. Later it will extend to all parts of the country if present plans are carried out.

The United Cigar Stores already market almost every kind of merchandise that can be carried advantageously in connection with retail cigar or drug stores. In 1925 the company entered the women's apparel business by opening an experimental shop for the sale of hosiery. While the drug subsidiary has been an important part of the United Cigar system for some time, it is now planned to build up a huge chain.

When interviewed by a representative of DRUG MARKETS an official of the United Cigar Co. stated that the above report was greatly exaggerated, and that no statement would be given out at this time.

Teggo Manufacturing Co., Chicago, announces new product, Teggo, for use as skin soap.

Drug Industries Personalities

The following have become life members of the American Pharmaceutical Association through that clause in the by-laws of the association which provides that those who have paid dues for thirty-seven consecutive years shall become life members:

Alice L. Braunwarth Halstead, Muscatine, Iowa; Otto Julius Hartwig, Chicago; George Alexander Newton King, Minneapolis, Minn.; Elie Henry La Pierre, Cambridge, Mass.; Ernest Grant Lewis, Jamaica Plains, Mass.; Henry Christian Lovis, New York; Josiah Comegys Peacock, Philadelphia; F. F. B. W. Petche, Yonkers, N. Y.; Edward Ludwig Pieck, Covington, Ky.; Henry Gottlieb Ruenzel, Milwaukee; Linville Holton Smith, Jamaica Plains, Mass.

Mrs. Alice L. Braunwarth Halstead, Muscatine, Iowa is the first woman to become a life member of the association under this provision.

Walter A. May, president, May Drug Stores, Pittsburgh, returns to this country after showing the world something new in the way of silver wedding anniversaries. Mr. and Mrs. May were in Paris when they decided to give a dinner party to celebrate the anniversary. His guests, however, were all in Pittsburgh. Invitations were sent speeding across the ocean to seventy-five persons, only sixty-three of whom could accept. They sailed from New York on April 18 for the dinner party, with all their expenses paid from Pittsburgh and back. The cost of the party probably was as high as $75,000, but both Mr. and Mrs. May carefully avoided discussing it, explaining it had been their pleasure to do this and the matter of cost was inconsequential.

Carling Chemical Co., Chicago, which recently moved to larger quarters at 2612 South Parkway, elects following directors for coming year: C. A. Redig, president; H. J. Schumm, vice-president and chairman of the board; Carl Redig, secretary treasurer; C. F. Zobel, J. A. Warzynski, J. A. Topf, and A. C. Caldwell. The latter two members are retail druggists, many of whom are numbered among the company's stockholders. Company declared a dividend of merchandise and in addition, stockholders who are retail druggists receive special discounts on merchandise.

Maryland State Pharmaceutical Association holds district conference at Cumberland, April 24. Speakers included Harry R. Rudy, Hagerstown, State president; E. V. Romig, Keyser, W. Va., president, West Virginia Pharmaceutical Association; and Charles R. Rhodes, Hyndman, Pa.

P. R. Dreyer, of P. R. Dreyer, Inc., New York, accompanied by Mrs. Dreyer, aboard SS Homer sails for Europe May 19 on a combination business trip and vacation to extend three months. Mr. and Mrs. Dreyer will go direct to Italy, and will visit Germany, Holland, Belgium, Switzerland, and France.

W. S. Walbridge, after twenty years of service as chairman of the board of directors, Owens Bottle Co., resigns, F. W. Schwenck succeeds him as director and W. Ford is elected chairman of the board.

W. R. Kansteiner, for past nine years associated with Royal Baking Powder Co. as assistant sales manager and recently as sales promotion manager in charge of demonstration work, joins staff of Harold F. Ritchie & Co., Inc., as sales executive.

M. J. Rentschler, general manager, J. H. R. Products Co., Willoughby, Ohio, addresses St. Louis section, American Chemical Society on the subject of "Peroxides—Their Manufacture, Properties and Uses."

W. G. Marshall, president, Marshall Drug Co., Cleveland, a chain of forty-three stores, presents his home town of Mount Forest, Ont., with a hospital, to be called the Louise G. Marshall Hospital, as a tribute to his wife.

Eric Scudder, president of Citrus Products Co., Chicago, is appointed member of the advertising committee of American Bottlers of Carbonated Beverages, which will direct the industry's national advertising account.

W. G. Ungerer, president, Ungerer & Co., New York, sails for Europe, accompanied by Senator Eugene Charabot, Charabot & Co. (Hughes Aine), Grasse, France, represented in the United States and Canada by Ungerer & Co.

Leroy R. Goldheim, formerly with the advertising staff of the Baltimore Post, is appointed advertising director, Read Drug & Chemical Co., chain drug stores, operating from Baltimore.

Katherine MacDonald markets a new line of cosmetics and appoints Emil Brisacher and Staff, Los Angeles office, to place her advertising in magazines.

Selmer H. Solem, takes a position with the Armand Co., Des Moines, after resigning as editor of "Candy & Soda Profits," St. Paul, Minn.

Edw. Grosse, a director of E. de Haen, A. G., recently visiting Pfaltz & Bauer, Inc., New York, American agents for de Haen, sails for Germany April 26.

S. F. Gillies, formerly with the St. Louis office, John T. Milliken & Co., is transferred to North Chicago office, Abbott Laboratories.

Charles Wesley Dunn moves his offices to 580 Fifth av., New York, corner of 47th st. New telephone is Bryant 5349.

Chicago Perfumery, Soap and Extract Association announces the addition of L. A. Solo, Primrose Laboratories, to membership.

Obituaries

George F. Harvey, president, National Drug Co., Philadelphia, dies April 25 at his home in Edge Hill, Pa., aged 85. He was born at Woodbury, Vt., August 22, 1843 and for years was active as a manufacturer of pharmaceutical products. He established the George F. Harvey Co. at Saratoga Springs, N. Y., in 1881.

Upon retiring from this company in 1900, he founded the National Drug Co. of Philadelphia, with laboratories in that city and at Swiftwater, Pa. He had been president of this company since its organization.

Daniel L. Abadie, secretary, Parker-Blake Co., Ltd., wholesale druggists, New Orleans, dies April 21, aged 62. He had been connected with wholesale drug business for many years, entering business with G. L. Finley & Co. as a young man and maintaining that association with Finley & Brunswig Co. and L. N. Brunswig & Co. until about sixteen years ago when he joined the Parker-Blake organization.

Charles Robert Meehan, president, Arthur Stilwell & Co., essential oils, New York, dies May 8, at his summer home at Belmar, N. J., aged 66. He was born in New York and joined the firm of which he was the head as an office boy fifty years ago. He was a brother-in-law of the founder of the firm, which first started business at 103 Fulton St.

George Hassall, aged 74 years, one of the founders and president of the K. K. K. Medicine company, died April 27 at his home in Keokuk, Ia. He had been in failing health two years. Surviving are his widow, a daughter and a grandson.

Theodore Campbell, former president, Philadelphia Association of Retail Druggists and of the Pennsylvania Pharmaceutical Association, dies at his home in Philadelphia, May 1, aged 62.

Wilbur Fenton Young, president of W. F. Young, Inc., Springfield, Mass., dies at Hamilton, Bermuda, in his thirtieth year. He succeeded his father, founder of the business, who died in 1918.

The Financial Markets

Bristol-Meyers Floats Stock

Bristol-Myers Co. offers a block of 93,785 shares of common stock at $59 per share. The stock does not represent any new financing and there will be no change in the management.

According to William M. Bristol, president of the company, "Bristol-Meyers Co. was incorporated in New York in 1900, the successor of a partnership established in 1887. The company manufactures and sells Ipana Tooth Paste, Sal Hepatica, and Gastrogen Tablets. These products are sold throughout the United States and in twenty-six foreign counties. Sales both domestic and foreign in each of the past four years have shown a substantial increase as compared with the preceding year. The growth has continued and increased in the current year.

"The products of the company are widely and extensively advertised, over $4,000,000 having been spent in advertising in the last four years. The company was one of the first to use the radio for advertising.

"The plant of the company is located at Hillside, West Elizabeth, N. J. Manufacturing laboratories are also operated in Montreal, Canada; Mexico City; Havana, Cuba and Sydney, N. S. W. Offices are located in New York; San Francisco; London, England; Montreal and Sydney.

"The growth of the company has been accomplished entirely through reinvestment of profits without resort to borrowing.

"Net sales, and net profits after Federal income taxes and after eliminating income from investments which are being withdrawn from the business, as certified by R. G. Rankin & Co., have been as follows:

Year	Sales	Net Profits	Per Share Common
1923	$2,751,238	$696,625	3.87
1924	3,322,258	816,998	4.53
1925	3,878,405	885,650	4.92
1926	4,416,583	811,297	4.50
1927	5,088,241	1,047,688	5.82

Sales in the first three months of 1928 have been 18% in excess of the corresponding period of 1927, and net profits have bene proportionately greater.

"The balance sheet as of March 31, 1928, adjusted to give effect to the proposed plan of recapitalization, the withdrawal of investments not required in the business and the payment of dividends to stockholders of record prior to the recapitalization, as certified by R. G. Rankin & Co., shows current assets of $1,649,449 as compared with current liabilities of $225,376 and total net assets of $2,732,834. The Company's valuable trade marks and good will are carried at $1.00.

"The present management, which has been responsible for the successful development of the business, will continue to direct the Company's affairs and is increasing its stockholdings." According to the banking house making the offering, the stock has been placed privately.

McKesson & Robbins, Inc., Bridgeport, declares regular quarterly dividend of 1¾ per cent. and an extra quarterly dividend of ¾ of one per cent. on preferred; and a regular quarterly dividend of 25 cents per share and an extra quarterly dividend of 25 cents per share on common. Both preferred and common dividends are payable May 10 to stock of record May 1.

McKesson & Robbins, Ltd., Canada, declares regular semi-annual dividend of 3½ per cent. on preferred and a semi-annual dividend of 25 cents per share on common, both payable May 1 to stock of record April 15.

American Home Products Corp. declares regular monthly dividend of 25 cents per share on common, payable June 1 to stock of record May 14.

Vivadou Profits Less

Report of V. Vivaudou, Inc., for year ended December 31, 1927, shows net profit of $1,012,191 after depreciation, Federal taxes, etc., equivalent after 7% preferred dividends, to $2.30 a share earned on 372,266 no-par common shares. This compares with $1,324,730 or $3.39 a share on 358,020 common shares in 1926.

Consolidated income account for year 1927 compares as follows:

	1927	1926	1925	1924
Net sales	$6,248,695	$5,312,980	$3,134,785	$2,949,488
Cost of sales	2,932,269	2,493,799	1,628,245	1,806,871
Expenses	2,139,253	1,400,215	998,176	1,483,402
Oper profit	$1,177,173	$1,418,966	$508,364	*$340,785
Fed. tax	100,000	.....	.....	.....
Misc. chgs net	64,982	‡94,236	61,398	101,477
Net prof	$1,012,191	$1,324,730	$446,966	*$442,262
Pfd. divs	154,679	92,606	.....	.....
Com. divs	836,649	535,556	.....	.....
Surplus	$20,863	$696,568	$446,966	*$442,262

*Deficit. ‡Includes reserve for taxes.

Consolidated balance sheet of V. Vivaudou, Inc., as of December 31, 1927, compares as follows:

	1927	1926	1925	1924
Assets				
†Plt, eq, etc	$ 164,209	$ 82,906	$ 87,953	$ 110,411
Gdwl, bd, etc	6,152,370	5,927,053	5,745,948	6,772,975
Call loans	.....	.....	175,000	.....
Acts. & nts. rec	1,012,366	551,509	208,130	345,403
Sdy acts rec	81,598	81,216	28,558	12,837
Mark bds	.....	.....	92,565	.....
Invent	1,221,170	963,903	517,887	764,063
Invest	151,938	1,518,718	282,299	214,003
Def. chgs	270,262	304,414	46,343	95,387
Total	$9,698,049	$10,118,113	$7,430,523	$8,453,556
Liabilities				
Pfd. stock	$2,857,800	$1,666,000	.....	$ 150,000
Com. stock	*5,759,700	5,389,000	$3,400,000	9,000,000
Susc. to stk	.....	1,468,750	.....	.....
Trd. accept	.....	.....	.....	126,460
Notes pay	.....	.....	.....	444,720
Cancel of contr	.....	.....	18,975	40,614
Accts pay	200,959	260,451	164,582	255,822
Divs. pay	189,616	297,670	.....	.....
Sdy accts, accr & tax res	322,999	.....	.....	.....
Subsid min int	4,900	.....	.....	.....
P & L surp	362,075	843,123	3,846,966	‡1,564,060
Total	$9,698,049	$10,118,112	$7,430,523	$8,453,556

*Represented by 372,266 no-par shares. †After depreciation. ‡Deficit.

Dow Chemical Co., Midland, Mich., declares stock dividend of 10 per cent. and a quarterly dividend of $1.50 on common and a regular quarterly dividend of $1.75 on the preferred stocks. All are payable May 15 to stock of record May 1. Rate on common stock was previously $1.25 quarterly.

Directors also authorized issue of 10,000 additional shares of no par common stock to be offered at $100 a share to common stockholders of record May 1 in proportion to their holdings as of that date.

Goodwill High in Drugs

Especially do the securities of drug companies as a group vary in their market prices from the book values of the stocks as indicated by the tangible assets behind them, says the "Wall St. Journal." In this class fall also the stocks of perfume companies whose earning power is based much on the same intangible assets as the drug companies.

Lambert, Lehn & Fink, Coty, Household Products and others in the group annually make large expenditures for advertising. When these companies "plow back" earnings, it does not go into plants and property, for of eight companies considered, only one has plant carried at more than $1,000,000, although annual earnings of all but one company are more than that amount. Plowing back earnings consists largely of increasing goodwill and the value of trade-marks through advertising, and their earnings are based upon this asset.

Goodwill Not Taxable

Household Products, for instance, showed earnings last year of 101% of book value, but when goodwill, which is carried at $18,100,000, was added the return was brought down to 14%. American Home Products, which carries goodwill at $12,133,870, earned $1,966,270 last year. On the book value of $3,748,810, this is a return of 52%, but when goodwill is added the return is reduced to 12%.

While this asset requires a yearly "maintenance" appropriation for upkeep or the setting aside of a portion of income for further development of goodwill, it has an advantage over assets tied up in plants and property account in that it is not taxable.

The book value of Lambert Co. stock, behind which are 437,875 shares of the 678,000 shares of Lambert Pharmacal Co. stock, is $2,034,394, yet the market appraisal of these shares is $53,843,750, so the value of "Listerine" as an income producer is rated at roughly $51,000,000. Coty has book value of $7,018,738 and the 309,300 shares at 145 represent $4,848,500, so that investors value the trade-marks and goodwill at about $37,000,000. Household Products, whose chief product is "Castoria", has book value of $2,948,389, and the market values of the securities of that company are $37,375,000, so it is worth roughly $34,000,000 to Household to have "children cry for it."

Valuations Based on Earnings

For not one of the five companies which places other than a nominal valuation on goodwill does the market place a lower valuation on that item than the company's figure. American Home Products values goodwill at $12,133,870, and the market valuation of that item is approximately $31,000,000; Forhan's balance sheet places goodwill at $2,000,000, against market estimate of $3,124,384; Household Products market valuation of goodwill at roughly $34,000,000 is almost double the $18,100,000 balance sheet item; Lehn & Fink's market valuation of goodwill of over $12,000,000 compares with the company's figure of $7,653,171; and Vivaudou's balance sheet valuation of goodwill of $5,927,052 compares with the market figure of $7,571,369.

Since the market price of these securities is based on the earning power of the companies, it is apparent that goodwill valuations are not too high for the earnings they produce.

Comparisons follow:

Company	Property account	Book balue (excl gdwl)	Book value per share	Goodwill	Shares of common	Market value of stocks	Present price	Earned in 1927	Earn per com. share
Am. Home Prod.	$874,311	$3,748,810	$ 7.02	$12,133,870	534,000	$34,710,000	65	$1,966,270	$3.67
Coty	377,236	7,018,738	22.69	1	309,300	44,848,500	145	3,341,189	10.80
Forhan Co.	87,893	925,616	3.08	2,000,000	b150,000	4,050,000	27	752,931	2.81
Household Prod.	495,112	2,948,389	5.12	18,100,000	575,000	37,375,000	65	3,001,260	5.22
Lambert Co.	f394,434	2,034,394	4.22	f1	481,250	53,843,750	115	2,997,979	6.22
Lehn & Fink	1,276,135	1,618,335	a3.72	7,653,171	285,000	14,435,000	51	1,277,142	4.32
Vick Chem.	357,541	4,392,986	10.98	1	400,000	26,400,000	66	c2,499,567	5.55
Vivaudou	82,906	30,5071	.85	5,927,052	e358,020	7,876,440	22	d1,324,730	3.39

a Including 150,000 shares of management stock.
b Class A stock; goodwill figured on 300,000 shares, including 150,000 shares of common, closely held.
c Year ended June 30, 1927.
d Year ended December 31, 1926.
e 16,660 shares of preferred stock also outstanding.
f Property account and goodwill of Lambert Pharmacal Co.; other figures for Lambert Co., which itself does not manufacture.

American Commercial Alcohol Corp.

American Commercial Alcohol Corp. offers a new issue of $2,200,000, 7 per cent. cumulative preferred stock through Bauer, Pogue, Pond & Vivian and William Schall & Co. This followed the private placing, on April 26, of an issue of $4,000,000 bonds by a syndicate headed by the National City Co. The preferred stock is priced at 108½ per unit, the unit consisting of one share of preferred and one-half share of common stock. The preferred stock is redeemable at 105 and accumulated dividends.

According to a letter by Richard H. Grimm, president, "American Commercial Alcohol Corp. has acquired the assets of American Distilling Co., David Berg Industrial Alcohol Co., and S. M. Mayer Alcohol Co., with plants located, respectively, at Pekin, Ill., Philadelphia and New Orleans, engaged in the manufacture and sale of alcohol.

"The corporation is one of the three largest producers of industrial alcohol in the United States.

"The active management, including several executives who have been identified with the predecessor companies, has acquired a substantial amount of the preferred and over 80% of the outstanding common stock of the corporation."

Capitalization of the company is given as follows:

	Authorized	*Outstanding*
Mortgage Bonds	$6,000,000	
Series A. 6% with Warrants		$4,000,000
7% Cumulative Preferred Stock $100 par value	4,000,000	2,200,000
Common Stock, no par value Voting Trust Certificates	150,000 shares*	77,000 shares

*30,000 shares reserved for exercise of Warrants, etc.

Lambert Co. and subsidiaries report for the quarter ended March 31, 1928, net income of $1,775,872 after charges, including taxes. After deducting the amount applicable to minority interest, the net income amounted to $1,182,292 or $2.45 a share on the 481,250 shares of common stock now outstanding. On the present basis of ownership of stock of subsidiaries the net income for the first quarter of 1927 amounted to $850,703, or $1.77 a share on the common stock at present outstanding.

Committee on stock list, New York Stock Exchange admits following securities to the list:

Crown Cork & Seal Co., Inc., $5,500,000, 20-year six per cent. sinking fund bonds, due 1947 on official notice of issuance.

Drug, Inc., 28,000 additional shares of no par capital stock, making total amount authorized to be listed 2,183,990 shares.

Van Ess Laboratories, Inc., places common stock on a regular dividend basis of $1 a year, with the declaration of a quarterly dividend of 25c share. In December the company paid 91c a share, the only distribution made in 1927. Earnings for the first quarter of this year are reported to be about 50 cents a share.

S. S. White Dental Manufacturing Co. declares extra dividend of ½ of one per cent. and regular quarterly dividend of 1½ per cent., both payable May 1 to stock of record April 23.

Household Products Corp. declares regular quarterly dividend of 87½ cents per share on common, payable June 1 to stock of record May 15.

Drug Industry Stocks

1928 Apr. 30th Bid	1928 Apr. 30th Asked	1928 High	1928 Low	1927 High	1927 Low	Sales in April	Sales from Jan. 1, 1928 to Apr. 30	ISSUES	Par $	Shares Listed	An. Rate	Earnings $-per share- 1927	Earnings $-per share- 1926
								NEW YORK STOCK EXCHANGE					
161¼	162¼	166¼	146	169¼	131	469,100	4,074,000	Allied Chem.	No	2,178,109	$4.50		9.79
83¼	84	88¼	70¼	77⅜	43⅜	2,193,920	10,531,620	American Can	25	2,473,918	2.00	4.11	4.31
146½	148	147	136½	141⅜	126	16,360	45,260	pfd.	100	412,333	7.00	31.66	33.38
78¼	82½	84⅜	69	74⅜	36	57,680	315,480	American Chicle	...	186,595	3.00	6.78	5.75
110	111½	...	...	110	90	1,502	5,815	pfd.	...	1,375	7.00	9 mo. 41.02	37.24
12½	12⅝	15½	11	15½	9⅜	478,820	1,611,620	American Drug Syn.	10	1,000,000	.80	6 mo. 0.52	Nil
66½	66⅞	68⅜	59	71	30⅜	115,400	821,500	American Home Products	No	300,000	2.00	3.67	3.69
69½	70	78½	65½	69½	53⅛	157,450	321,750	Bon Ami A	No	100,000	4.75	5.28	4.75
70	70⅜	71⅛	54⅜	60⅛	36	502,000	1,523,700	Canada Dry Ginger Ale	No	450,694	2.00	5.10	3.85
72	74	...	...	80	46	21,448	144,198	Certo Corp.	No.	300,000	2.50	3.86	3.52
163¾	164	165	127	131	96½	255,400	989,500	Coco Cola	No	500,000	7.00	9.16	16.50
173	174	189½	153⅓	203	145	104,000	485,600	Comm Sol	No	217,722	8.00	9.24	14.13
108	108⅜	114⅜	80¼	86⅛	58¾	438,406	1,163,806	Cont. Can	No	620,000	6.00	7 mo. 7.54	6.36
124¾	127	...	...	126	120	740	4,140	pfd.	100	52,930	7.00	7 mo. 86.82	70.55
78	78½	82⅛	64⅜	68	46½	606,700	3,772,200	Corn Products	25	2,530,000	3.00	9 mo. 2.69	4.03
146⅜	147	146⅛	138⅜	142½	128	4,400	18,800	pfd.	100	250,000	7.00	9 mo. 32.50	47.73
166	167½	168⅜	123	123	56	123,080	447,180	Coty Inc.	No	309,300	5.00	10.80	9.52
120	120⅜	121½	115	118	105½	17,740	52,840	Dupont deb.	100	799,268	6.00	9 mo. 57.04	52.51
375	380	395	310	343⅞	168	139,360	2,135,660	DuPont de Nemours	No	2,661,658	9.50	15.45	13.98
74½	74⅞	76⅜	66	71⅛	46½	914,220	2,160,720	Fleischmann	No	4,500,000	3.00	9 mo. 4.30	4.08
66	67	69¼	64½	70⅜	43½	285,400	552,800	Household Prod.	No	575,000	3.50	5.22	5.22
71½	71½	75	65	77½	45⅞	170,200	1,249,800	Kresge	10	3,678,619	1.20	9 mo. 3.76	3.36
115½	...	...	...	118	110½	1,170	5,553	pfd.	100	20,000	7.00	9 mo. 699.85	625.22
115	115½	120	79½	88⅛	66	423,420	1,544,720	Lambert Co.	No	281,250	2.50	6.22	...
50⅜	51⅛	53½	38	43	32⅜	299,760	823,960	Lehn and Fink	No	265,000	3.00	5.00	5.30
30⅜	30⅞	36⅜	30⅛	34⅛	19¼	76,760	171,660	Life Savers	No	550,000	1.60	2.62	2.27
72½	72⅞	77⅛	63½	78⅜	45	192,700	599,500	Liquid Carbonic	No	125,000	3.60	5.90	11.34
86½	90	90	77	90	55	2,020	17,620	McCrory Stores	No	376,709	1.20	5.26	4.80
139	139¼	153⅛	117	123⅛	60¼	2,537,200	6,514,000	Montgomery & Ward	10	1,141,251	4.00	10.25	6.25
57½	58	71⅜	55	67⅜	59	14,460	27,860	Nat'l Dist pfd.	No	109,795	...	9 mo. 1.62	Nil
65¼	65⅜	65⅜	34	46⅜	20	221,760	1,331,660	Park & Tilford	No	200,000	...	9 mo. 2.44	2.67
33	33⅜	37	22⅜	27⅛	19½	243,200	638,900	Penick & Ford.	No	433,773	...	9 mo. 1.48	1.37
124⅜	124⅜	129⅜	118	126⅛	92⅜	577,520	2,997,120	Postum Co.	No	1,467,365	5.00	6.62	7.71
85	87¼	...	...	71	55	260	4,370	Prophylactic Brush	No	100,000	4.50	6 mo. 6.56	5.34
62⅛	63	67⅛	49⅞	57	47	1,098,760	2,397,860	Schulte	No	1 116,145	8.00	6 mo. 2.41	4.82
100⅛	101	110¼	82⅛	91⅜	51	1,060,160	3,881,160	Sears & Roebuck	No	4,200,000	2.50	5.96	5.21
47⅜	47⅜	49	37⅜	41⅜	35⅛	896,620	3,171,320	Standard Oil of N. J.	25	24,262,532	1.00		5.01
17⅜	17⅝	18⅛	11⅜	14	7	144,960	173,460	Sweets Am.	50	111,773	...	9 mo. 0.32	0.42
86½	87	89⅜	80	200⅛	159			Drug Inc.	100	380,638	9.00	9 mo. 7.87	13.02
115⅛	116	122½	102⅜	111⅜	69	368,180	1,784,680	U. S. Ind. Alc.	100	240,000	5.00	6.00	7.04
120⅛	122	121	119	119	107½	870	786,770	pfd.	100	60,000	7.00		35.19
68½	69	71⅛	58	63⅜	48	178,300	562,700	Vick Chem Co.	No	400,000	4.00	3.44	3.31
20	20½	25⅜	18	39½	20½	151,360	1,179,660	Vivaudau	No	358,020	3.00	6 mo. 1.85	3.30
85	88½	...	...	118½	97	1,940	27,683	pfd.	100	16,600	7.00	9 mo. 39.05	79.51
38	38⅜	40	34⅛	41⅛	26	26,100	223,600	White Rock	No	200,000	2.50	3.69	3.82
13⅜	14	16	11⅜	17⅛	10	128,120	483,720	Wilson	No	434,983	...		...
188	188½	194	175½	198½	117⅜	447,140	2,287,040	Woolworth, F. W.	25	2,600,000	6.00	9.06	10.81
73	74½	79⅛	69¾	72¾	50⅛	19,680	112,480	Wrigley	No	1,800,000	3.50	5.42	5.10
								NEW YORK CURB					
High 19½	Low 19¼	21⅞	15	22	19½	19,100	91,700	Allison Drug Co.	No	.....	...		...
...	...	...	...	126	76½			Ches Mfg Co.	25	120,000	4.00		...
28	28	29	23	26½	17⅜	23,340	98,440	Forhans	No	150,000	1.00	2.21	...
11¼	11	13⅜	7⅞	23⅜	18⅜	6,400	8,900	Heyden Chemical Corp.	No				
24	24	25	21⅛	21⅜	18	8,900	28,500	Hires	No	90,000	2.00	2.53	...
23⅜	23⅜	26	20	39	37	31,120	64,320	May Drug Stores	10	10,000	1.50		...
49¼	49	49¼	38	40	27½	3,600	5,700	Monsanto Chem.	50	110,000	2.50	9 mo. 6.11	5.60
56	55	57⅜	155	57	28⅜	12,340	29,340	Parke Davis & Co.	25	949,577	2.00	1.54	7.50
278	270	280	247	245	178	16,860	86,660	Peoples Drug Store	No	100,000	1.00		3.51
130⅛	128¼	133	125	130	115⅜	13,195	15,030	Proctor & Gamble	20	1,250,000	4.75		9.17
						14,580	41,440	Swift & Co.	100	1,500,000	8.00	8.13	10.40
								CLEVELAND					
High 165	Low 152½	165	122½	105	70	777	1,795	Dow Chem Co.	No	100,000	4.00		...
...	...	...	...	106½	100	142	781	pfd.	100	18,297	7.00		...
								PITTSBURGH					
24⅛	24	25⅛	20	22	17⅛	3,505		May Drug Stores	10	10,000	$1.50		...
								CHICAGO					
56	54½	57	38⅜	39	37	26,131	52,629	Monsanto Chem.	No	110,000	2.50	9 mo. 6.11	5.60
...	...	125	125	125⅛	61½	7,140	542,471	Montgomery & Ward	10	1,141,251	4.00	10.25	6.25
104	98½	102½	100	91⅜	52	16 8,359	635,655	Sears & Roebuck	No	4,200,000	2.50	5 96	5.21
130	128½	130⅜	130½	130	115⅜	20,373	37,790	Swift & Co.	100	1,500,000	8.00	8.13	10.43
73¼	72½	74¼	74	73	51	18,950	142,411	Wrigley	No	1,800,000	3.50	5.35	5.05
								CINCINNATI					
35	34	34	30½	131	96½	1,871	17,246	Coco Cola	No	500,000	7.00	9 mo. 9.6	16.5
38	37⅜	39	38½	42⅜	36	2,445		Dow Drug Co.	100	60,000	8.00		...
130	125	130	125	126	125	50		pfd.	100	40,000	7.00		...
...	...	...	...	126⅛	113⅛	164		Fleischmann	No	4,500,000	2.50	1,589.49	1,501.80
277	270	280	279⅛	250	177	10,119	53,944	Proctor & Gamble	20	1,250,000	4.75		9.17
								BOSTON					
03	102½	131	130	130½	115	7,348	28,491	Swift & Co.	100	1,500,000	8.00	.13	10.4
								DETROIT					
...	...	...	...	16⅜	14½			Allison Drug Co.	No	.....	...	9 mo. 2.03	...
48¼	48½	49	48½	*145	27	65	850	Parke Davis.					
Bid	Asked							BALTIMORE					
...	...	...	...	114	103	50	850 788	Sharp & Dohme pfd.	100	1,000,000	7.00		...
								UNLISTED					
24⅛	11⅜	24⅛	23⅛	29	11			American Solvents	No	160,000	...		...
11⅛	11⅛	13⅜	7⅞	109	102			Heyden Chemical Corp. pfd.	100	124,244			
...	...	...	...	71⅛	20			Kolynos pfd.	100	.....	8.00		...
...	...	...	..	110	98			McKesson & Robbins	No	100,000	1.00		...
...	...	...	...	89	55			Merck pfd.					
74	78	74	78	...	...			Mulford, H. K. & Co.	50	54,823	3%		. .
...	...	...	...	...	...			Newport Chem.	1	912,198	4%		...
...	...	...	...	131	101			Squibb	20	40,000	6.00		...
...	...	...	...	...	...			pfd.	100	28,354	8.00		...
48⅛	44	48⅛	41⅛	...	...			Zonite Corp.					

(e) Bid and Asked. (f) Thru Jan. '28. (*) Old Stock.

Prices Current

Medicinal, Aromatic, and Photographic Chemicals, Crude Drugs, Spices, Essential Oils and Concentrates, Miscellaneous Raw Materials, etc.

Chemical prices quoted are of American manufacturers, spot New York, f. o. b. for immediate shipment, unless otherwise specified.

Products sold f. o. b. works are so specified. Imported chemicals are so designated. Resale stocks, when a market factor, are indicated "second hand."

Crude Drugs and Essential Oils are quoted f. o. b. New York (Manhattan with limitations) for immediate shipment.

The range of price given is not "bid and asked," but are prices of different sellers, based on varying grades and/or quantities. Containers named are original packages most commonly sold.

Acetanilid
Barium Sulfate

Chemicals

Standard Purchasing Power of the Dollar: July 1914 $1.00 - Jan. 1927 68.7c - July 1927 71.7c - April 1928 67.8c

Fine Chemicals

Acetanilid — The market has been firm since the price advance announced about a month ago. Manufacturers are quoting 36c @ 37c lb., with demand steady and normal. The existing firmness is attributed to the high cost of production which caused the advance, and to the absence of competitive selling which formerly caused price shading.

Acetone — Continued advances of price in the raw material market has placed this material in a very strong position. This position is accentuated by the fact that the period of most heavy consumption is about to begin. No price changes have been indicated thus far with manufacturers maintaining quoted figures of 14c @ 15c lb.

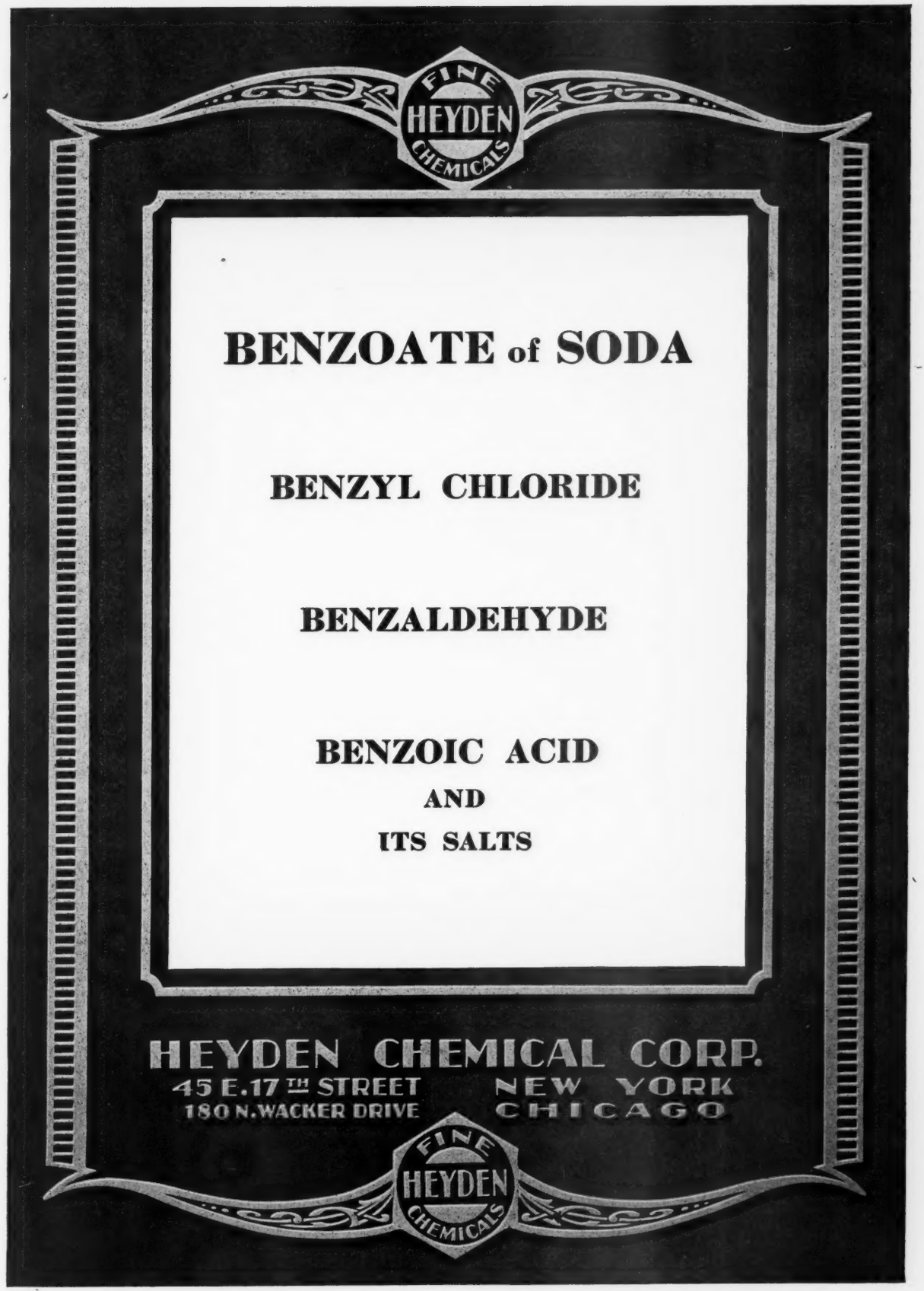
Acid Acetylsalicylic — Quoted prices have been maintained by manufacturers at 85c @ 90c lb., depending upon quantity and delivery. There is now very little obtainable in outside hands. Such merchandise is available at 82c lb. but the offerings are irregular and uncertain. Demand is reported to be about normal for this season of the year.

Acid Boric — Stability has characterized this market for some time. Prices are unchanged at quoted levels.

Acid Carbolic — Producers have maintained quoted prices in the face of fair demand although some quantities of resale material are available as low as 16c @ 18c lb., depending upon quantity.

Acid Citric — Demand is not all that it should be according to manufacturers who claim that the season is not up to the average. Producers are quoting 46c lb. in barrels and 46½c lb. in kegs, while powdered is quoted at 47c lb. in barrels and 47½c lb. in kegs. Supplies of foreign are limited and held firmly at 59c @ 61c lb. Although the market is strong the lack of any great seasonal demand as yet seems to preclude any further advances in price which were predicted in some quarters last month.

	Current Market		1928 High	1928 Low	1927 Aver.	1914 July
Acetanilid, USP, 200 lb bbls....lb.	.36	.37	.37	.28	.36	.22
Acetone, CP, 350 lb drs wks....	.14	.15	.15	.14	.14	.10½
Acetphenetidin, 225 lb bbls....lb.	.....	1.40	1.40	1.40	1.53	.80
Acids						
Acid, Acetylsalicylic, 225 lb....bbls.	.85	.90	.90	.85	.85	1918
Agaric, 1 oz vials....oz.	.....	3.50	3.50	3.50	3.50	.....
Arsenous, USP, 220 lb bbls....lb.	.....	.18	.18	.18	.19	.09
Benzoic, USP, 100 lb bbls....lb.	.60	.61	.61	.60	.60	.50
Boric, 100 lb kegs....lb.	.11½	.12	.12	11½	.11	.07
Cacodylic, 5 lb bot....lb.	.....	8.00	8.00	8.00	8.00	6.00
Camphoric, USP, VIII 1 lb bot....lb.	4.82	4.82	4.82	4.82	5.15	1917
Carbolic, USP, crys 112 lb tins....lb.	.18	.20	.21	.18	.18½	.07½
Chrysophanic, see Chrysarobin....						
Cinnamic, 5 lb cans....lb.	3.25	3.50	3.50	3.25	.....	2.20
Citric, USP, crys 230 lb bbl....lb.	.....	.46	.46	.44½	.44	.53
USP, crys imp. 112 lb keg....lb.	.59	.61	.61	.55	.52	.54
USP, powd 200 lb bbl....lb.	.....	.47	.47	.45½	.45	.53½
Diethylbarbituric, 1 lb bot....lb.	.....	4.60	4.60	4.60	8.00	23.20
Gallic, USP, 150 lb bbls....lb	.....	.74	.74	.74	.73	1916
Glycerophosphoric, 25% 1 lb bot....lb.	1.40	1.45	1.45	1.40	1.40	2.00
Hydriodic, USP, 10% 5 lb bot....lb.	....	.80	.80	.80	.70	.70
Hydrobromic, USP, 40% 155 lb cbys wks....lb.	.....	.55	.55	.55	.55	.40
Hypophosphorous, USP, 30%....lb.						
5 gal demis....lb.	.....	.85	.85	.85	.85	.45
Lactic, USP, VIII 100 lb cbys....lb	.56	.62	.62	.56	.57	.45
USP, X 100 lb cbys....lb.	.62	.64	.64	.62	.62	.44
Phenylcinchonic....lb.	.....	4.50	4.50	4.50	4.75	.....
Phosphoric USP, Syr 70 lb drs....lb.	.14	.15	.16	.14	.16½	.20½
Pyrogallic, crys 5 lb cans....lb.	1.40	1.50	1.50	1.40	1.37	1.20
Resublimed, 5 lb cans....lb.	1.80	1.85	1.85	1.80	1.72½	1.20
Salicylic, USP, 100 lb bbls....lb.	.....	.40	.41	.40	.40	.22½
Succinic, 100 lb bbls....lb.	.....	1.35	1.35	1.35	1.55½	2.75
Sulfurous, USP, 6% 100 lb cbys....lb.	.05	.06	.06	.05	.05	1918
Tannic, USP, fluffy 50 lb bbls....lb.	.87	.93	.93	.87	.87½	.50
Powd 200 lb bbls....lb.	.80	.85	.85	.80	.78½	.55
Tartaric, USP, 300 lb bbls....lb	.....	.38	.38	.35	.....	.30½
USP, imp 240 lb bbls....lb.	.37	.38	.38	.34½	.....	.30½
Aconitine, Alk, crys 1 oz vials....oz.	.....	30.00	30.00	30.00	30.00	1918
Amorphous, 1 oz vls....oz.	.....	20.00	20.00	20.00	20.00	1918
Adeps Lanae, hyd 350 lb bbls....lb.	.15	.16	.16	.15	.16	1918
Anhydrous, 350 lb bbls....lb.	.18	.19	.19	.16	.17	1918
Agaricin, 1 oz vls incl....oz.	.....	2.32	2.32	2.32	2.10	.55
Alcohol						
Alcohol, Benzyl, 5 lb bot....lb.	1.25	1.35	1.55	1.25	1.45	.....
Ethyl, USP, 190 pf 50 gal bbls....gal.	2.73½	2.78½	2.78½	2.70½	3.70	2.50
Pure tax free....gal.	.60	.67	.77	.54	2.50	.80
Grain drums....gal.	3.90	4.00	4.00	3.90	3.82½	Nom.
Denatured, drums barrels....						
No. 1 spec....gal.	.43	.50	.55	.43	.....	.....
1 comp....gal.	.44	.51	.56	.44	.....	.....
No. 5 spec....gal.	.43	.50	.55	.43	.....	.....
comp....gal.	.44	.51	.56	.44	.....	.....
23 a, spec....gal.	.43½	.50½	.68	.43½	.....	.....
39 b, spec....gal.	.59	.66	.69	.56	.....	.....
40, spec....gal.	.54½	.61½	.64½	.51½	.....	.....
Isopropyl refd 98-99% drs....gal.	1.25	1.50	1.50	1.25	1.25	.....
Phenylethyl, 1 lb bot....lb.	8.00	10.00	10.00	8.00	8.00	.....
Aloin, USP, 100 lb cases....lb.	1.00	1.05	1.05	.90	.90	.68
Aluminum Acetotartrate kegs....lb.	.....	1.60	1.60	1.60	1.60	1.10
Amidopyrine, 10 lb boxes....lb.	4.40	4.60	4.75	4.40	4.64	.....
Ammonium Salts						
Ammonium Acetate 100 lb kegs....lb.	.34	.36	.38	.34	.36	.28
Benzoate, USP, 1 lb bot....lb.	.....	1.27	1.27	1.27	1.27	.90
Borate, 10 lb bot....lb.	.....	.35	.35	.35	.35	.60
Bromide, USP, 450 lb bbls....lb.	.48	.50	.50	.48	.48	.48
Imported, 112 lb boxes....lb.	.48	.50	.50	.48	.50½	.49
Carb., USP, lump 100 lb kegs....lb.	.....	.13½	.13½	.13½	.13½	.08½
USP, powd 100 lb kegs....lb.	.....	.14½	.14½	.14½	.14½	.09½
Citrate, 100 lb kegs....lb.	.85	.90	.90	.85	.85	.70
Ichthyolate, as to brand....lb.	4.00	4.50	4.50	4.00	4.85	3.25
Iodide, USP, 25 lb jars....lb.	.....	5.20	5.20	5.20	5.20	3.70
Phosphate, dibasic 250 lb bbls....lb.	.43	.45	.48	.43	.48	.12
Salicylate, USP, 100 lb kegs....lb.	1.15	1.20	1.20	1.15	.96½	.40
Valerate, USP, 25 lb jars....lb.	2.75	2.90	2.90	2.75	2.75	1.25
Amylene Hydrate, 1 lb bot....lb.	.....	7.10	7.10	7.10	7.10	5.40
Antipyrine, USP, 100 lb cans....lb.	1.70	1.65	1.75	1.55	1.75	2.00
Apomorphine Hydrochloride, ¼ oz. vials....oz.	.....	35.80	35.80	35.80	23.80	10.40
Arecoline Hydrobrom, 1 oz vials....oz.	7.75	8.75	11.45	7.75	8.37	7.10
Aspirin see Acid Acetylsalicylic....						
Aspidospermine Amorphous....oz.	.....	15.00	15.00	15.00	15.00	15.00
Atropine Alk, USP, 1 oz vials....oz.	.....	9.10	9.10	9.10	6.93	7.25
Methyl bromide, 1 oz vials....oz.	.....	25.00	25.00	25.00	25.00	20.00
Sulfate, 5 oz cans....oz.	.....	3.00	3.00	3.00	3.00	6.10
Single ounce....oz.	.....	3.15	3.15	3.15	3.15	6.25
Barium Iodide, 5 lb box....lb.	.....	5.15	5.15	5.15	5.15	4.95
Sulfate, X-ray diagn bbls....lb.	.09½	.10	.10	.09½	.09½	.11


FINE
HEYDEN
CHEMICALS
BENZOATE of SODA
BENZYL CHLORIDE
BENZALDEHYDE
BENZOIC ACID
AND
ITS SALTS
HEYDEN CHEMICAL CORP.
45 E. 17TH STREET NEW YORK
180 N. WACKER DRIVE CHICAGO
FINE
HEYDEN
CHEMICALS

Chemicals

Standard Purchasing Power of the Dollar: July 1914 $1.00 - Jan. 1927 68.7c - July 1927 71.7c - April 1928 67.8c

Acid Phosphoric — Makers have announced price reductions of 1c lb. on U. S. P. grade. The demand has been fair at the new price range of 14c @ 15c lb.

Acid Tannic — Prices on U. S. P. grades have been firmly held. Fluffy is quoted at 87c @ 93c lb. with some resale material available at 85c lb. Powdered is also held at 80c @ 85c lb.

Acid Tartaric — The market for domestic has been very firm due to almost complete absence of any spot stocks of imported material. Importations during the first two months of the year were only 2,336,682 pounds, valued at $15,288, as compared with 5,015,885 pounds, valued at $25,058, for the corresponding period of 1927. Demand has been active and quoted prices have been maintained by manufacturers and importers.

Adeps Lanae — The market price for anhydrous is 18c @ 19c lb., while hydrous is quoted at 15c @ 16c lb. Demand has been good, and the market steady. Movement into consuming channels is normal for this time of the year and shows some tendency towards expansion. Some competition in the higher grades of imported and domestic material has been evident but prices are firmly maintained.

Alcohol — This market has been exceedingly firm and strong with producers reporting a large percentage of their year's capacity already contracted for. Special formulas have been advanced during the past month as follows: Every formula above 13A with the exception of 23, 23A, 43 and 44A, has been advanced 3c gal. in less carload lots; tax paid has been advanced 3c gal. in less carload lots; tax free has been advanced 6c gal. in less carload lots. Accordingly, U. S. P. ethyl is now quoted at $2.73½ gal. in drums and $2.78½ gal. in barrels; pure, tax free is now at 60c gal. in drums and 67c gal. in barrels; Specially denatured, 39B is now at 59c gal. in drums and 66c gal. in barrels; and special denatured, 40, at 54½c gal. in drums and 61½c gal. in barrels; all in less carload lots. Quotations on carlot quantities are unchanged.

Aloin — High prices and scarcity of supplies in the raw material market have occasioned a 10c lb. price advance in the U. S. P. grade since last reported. It is now quoted at $1.00 @ $1.05 lb. in a firm market with good demand at the higher prices.

Amidopyrene — Firmer undertones have been evident in this market and prices are being held at $4.40 @ $4.60 lb. since the advance of last month.

		Current Market	1928 High	1928 Low	1927 Aver.	1914 July
Bay Rum Porto Rico, 45 gal bbls	gal.	.80	.85	.85	.80	.80	.....
Domestic syn. 50 gal bbl	gal	.65	.70	.70	.65	.65	.....
St. Thomas, 50 gal bbls	gal	.80	.85	.85	.80	.81	.....
Benzonaphthol, 5 lb boxes	lb.	2.50	2.60	2.60	2.50	2.50	.89
Benzoyl Chloride, 500 lb dr	lb.	.....	1.00	1.00	1.00	1.00	1.00
Benzyl Benzoate, Medicinal FFC	lb.	.....	1.40	1.40	1.40	1.75	1.25
Chloride Redis, 160 lb cby	lb.	.30	.35	.35	.30	.30	1.50
Formate, 1 lb bot	lb	3.25	3.50	3.50	3.25	3.25	.....
Succinate, 160 lb cby	lb.	.....	5.25	5.25	5.25	4.63	.....
Bismuth							
Bismuth, metal 100 lb cases	lb.	2.10	2.20	2.25	2.00	2.49	1918
Ammon. Citrate, USP, 5 lb cans	lb.	.....	5.65	5.65	5.50	5.70	2.50
Betanaphtholate, 5 lb box	lb.	3.30	3.35	3.35	3.30	3.30	2.80
Citrate, USP, 5 lb cans	lb.	.....	2.95	2.95	2.75	2.81	2.50
Chloride	lb.	.....	3.40	3.40	3.15	3.55	3.15
Hydroxide	lb.	.....	3.30	3.30	3.05	3.12	2.70
Nitrate, 25 lb jars	lb.	.....	1.95	1.95	1.85	1.90	1.45
Oxide anhydrous	lb.	.....	3.70	3.70	3.55	3.61	3.05
Oxychloride, 25 lb boxes	lb.	.....	3.35	3.35	3.10	3.20	2.00
Salicylate, 25 lb boxes	lb.	.....	1.95	1.95	1.80	1.92	1.60
Subcarbonate, USP, 25 lb boxes	lb.	.....	2.70	2.70	2.43	2.98	2.10
Subcarbonate, X-ray diag 1 lb bottles	lb.	.....	3.65	3.65	3.40	3.50	4.09
Subgallate, USP, 25 lb boxes	lb.	.....	2.70	2.70	2.55	2.61	1.65
Subiodide, 5 lb lots	lb.	.....	4.40	4.40	4.20	4.31	3.75
Bismuth							
Subnitrate, USP, 25 lb jar	lb.	.....	2.30	2.30	2.20	2.30	1.80
Subsalicylate, USP, 25 lb boxes	lb.	.....	3.15	3.15	2.90	3.06	2.05
Tannate	lb.	2.60	2.65	2.65	2.60	2.60	2.00
Borax, crys USP, 400 lb bbls	lb.	.04½	.05	.05	.04½	.04½	.03½
Bromine, N F, 6 lb bot	lb.	.....	.45	.45	.45	.46	.43
Bromoform, USP, 5 lb bot cases	lb.	1.65	1.90	1.90	1.65	1.65	1.05
Brucin Alk., 100 oz tins	lb.	.04	.05½	.05½	.04	.08	.60
Sulfate, 100 oz tins	lb.	.04	.05½	.05½	.04	.08	.55
Butylchloral Hydrate bot	lb.	4.00	5.00	5.00	4.00	4.00	2.75
Butyric Ether, absolute 25 lb cans	lb.	1.10	1.20	1.20	1.15	.....	1.15
Cadmium Salts							
Cadmium Bromide, jars 50 lb	lb.	1.15	1.20	1.20	1.10	.....	.85
cases wks	lb.	1.05	1.10	1.10	1.05	1.15	1918
Iodide, 10 lb bot	lb.	.....	4.45	4.45	4.45	4.45	3.50
Metal Sticks, 100 lb. cases	lb	.72	.80	.80	.65	.67½	.95
Sulfide cases	lb.	1.20	1.25	1.25	1.20	1.20	1.75
Caffeine							
Caffeine Alk, USP, 1							
100 lb kegs	lb.	2.90	3.05	3.20	2.90	3.14	3.65
Citrated, 50 lb cans	lb.	2.00	2.25	2.25	2.00	2.53	2.60
Hydrobromide, 1 lb bot	lb.	4.80	5.00	5.00	4.65	4.65	1918
Hydrochloride, 1 lb bot	lb.	6.05	6.55	6.55	6.05	6.05	4.25
Sulfate, 1 lb bot	lb.	5.40	5.90	5.90	5.40	5.40	1918
Sodium Benzoate, tins	lb.	.....	3.05	3.05	3.0	3.20	3.15
Salicylate, tins	lb.	.....	2.95	2.95	2.95	3.10	3.15
Calcium Salts							
Calcium Bromide, 100 lb cs	lb.	.....	.60	.60	.60	.60	.58
Carb, USP, 175 lb bbls	lb.	.04½	.06½	.06½	.04½	.06	.06
Glycerophos, 250 lb bbls	lb.	.....	1.40	1.40	1.40	1.40	1.00
Hypophes, USP, 25 lb cans	lb.	.60	.65	.65	.60	.60	1918
Iodide, 5 lb bottles	lb.	.....	4.35	4.35	4.35	4.35	3.60
Lactate, USP, 500 lb bbls	lb	.45	.50	.50	.45	.52	.38
Lactophosphate Soluble. Crystals tins	lb.	.....	1.20	1.20	1.20	1.20	.78
Powdered tins	lb.	.....	1.00	1.00	1.00	1.00	.78
Insol. powd tins	lb.	.....	.50	.50	.50	.50	.93
Sulfide, USP, 100 lb drs	lb.	.21½	.24	.25	.20	.....	.12
Camphor							
Camphor, American Refined 250 lb bbls	lb.	.....	.70½	.70½	.61	.68	.44½
Slabs, 100 lb cs	lb.	.....	.70½	.70½	.63	.71½	.....
1 oz tab, 100 lb cs	lb	.....	.74½	.74½	.70	.72	1918
Jap. ref. slabs, 100 lb cs	lb.	.....	.64	.66	.57	.64	.44½
Refined powd	lb.	.....	.68	.70	.62	.72	.....
½ oz tab, 100 lb cs	lb.	.....	.74	.75	.68	.74	.....
Liniment, bbls	gal.	2.20	2.30	2.30	2.20	2.25	.....
Monobrom, 100 lb cs	lb.	1.85	1.90	1.90	1.85	1.85	1.00
Caramel, 40 gal bbls	gal.	.....	.63	.63	.63	.63	.....
50 gal bbls	gal.	.....	.63	.63	.63	.63½	.....
Carmine, No. 40, 5 lb boxes	lb.	5.00	5.15	5.15	5.00	5.00	2.75
Casein edible, 100 lb kegs	lb.	.45	.55	.55	.45	.45	1918
Chalk							
Chalk drop, 175 lb bbls	lb.	.....	.03½	.03½	.03½	.03	.04
Precip light, 250 lb csk	lb.	.....	.04½	.04½	.04½	.04½	.04
Heavy 540 lb csks	lb.	.02½	.03½	.03½	.02½	.02½	.03
Bulk	ton	.....	5.00	5.00	5.00	5.00	18.00
English, 7 lb bags	lb.	.....	.08½	.08½	.08½	.08½	.04
Charcoal Animal medicinal jars incl	lb.	.....	.50	.50	.50	.50	.....
Charcoal							
Wood, powd, 100 lb bbls	lb.	.05½	.06	.06	.05½	.05½	.....
Chloramine, USP, 200 lb bbls	lb.	.....	1.75	1.75	1.75	1.75	.....
Chlorcosane, 5 lb bot	lb.	.55	.65	.65	.55	.55	.....
Chloroform, USP, 50 lb drs	lb.	.28	.30	.30	.28	.30	.19
Chloral Hydrate, USP, 25 lb jars	lb.	.70	.75	.75	.70	.77	.34
100 lb drums	lb.	.65	.70	.70	.65	.....	.32
Cholesterin	lb.	4.00	4.56	4.56	4.00	4.00	6.50
Chromium Sulfate Scales, tins	lb.	.55	.60	.60	.55	.55	.41
Powdered tins	lb.	.60	.65	.65	.60	.30	.46

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Brucine Sulphate
Brucine Alkaloid
Codeine Sulphate
Atropine Alkaloid
Guaiacol Benzoate
Aconitine and Salts
Veratrine Alkaloid
Codeine Phosphate
Duboisine Sulphate
Pilocarpine Nitrate
Hydrastine Sulphate
Acid Diethylbarbituric
Colchicine Amorphous
Berberine Sulphate Acid
Arecoline Hydrobromine
Veratrine Hydrochloride
Hydrastine Hydrochloride
Berberine Sulphate Neutral
Strychnine Sulphate Crystal
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Berberine Hydrochloride
Yohimbin Hydrochloride
Pilocarpine Hydrochloride
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THE HOFFMANN LAROCHE CHEMICAL WORKS, INC.

17-19-21 CLIFF STREET, NEW YORK, N. Y.

Standard Purchasing Power of the Dollar: July 1914 $1.00 - Jan. 1927 68.7c - July 1927 71.7c - April 1928 67.8c

Ammonium Salicylate — Absence of competition and the fact that producers had limited supply to approximate the demand, has resulted in very firm and strong conditions. Prices have advanced somewhat, quotations now ranging from $1.15 @ $1.20 lb.

Antipyrine — Increased business and activity during the past month have finally resulted in a price advance by manufacturers to $1.70 lb. on U. S. P.

Arecoline Hydrobromide — Although manufacturers maintain quoted prices of $7.75 @ $8.75 oz., keen competition has resulted in sales being made under that figure during the past month. Some resale deliveries have also been made at $6.25 @ $6.50 oz. although stocks in outside hands have diminished considerably during the month.

Bay Rum — Demand has been good, especially for imported grades. Prices have been firm, with but little competition. Domestic is quoted at 65c @ 70c gal. with imported at 80c @ 85c gal.

Bismuth — Prices in the metal market have been very steady during the month and remain at the same level as when last quoted, $2.10 @ $2.20 lb. Demand for salts has also been normal and satisfactory with the result that prices have been fairly well maintained, although limited quantities of subcarbonate and subgallate have been available at lower than the quoted figures.

Brucine — Both alkaloid and sulfate remain at 4c @ 5½c lb., which low price has been prohibitory insofar as shading in competition is concerned. The market is firmer although demand has been light.

Camphor — The market has weakened considerably during the past month which is no doubt a natural reaction from conditions which existed when last reported. At that time, all spot stocks had been gathered in a few firm hands, Japanese producers could not fill any orders before June shipment, and as a result prices were high. During the month, however, prices in the primary market declined and this has been reflected here in a 2c lb. decline on spot prices. Japanese slabs are now at 64c lb., powdered at 68c lb. and tablets at 74c lb.

Chloroform — Although the chief makers are maintaining quotations of 28c @ 30c lb. for U. S. P. grade, there are still quantities of resale material being offered at 25c @ 27c lb.

Cinchonidin Sulfate — Spot supplies of this material are very scarce and only obtainable at schedule price of 35c oz.

		Current Market	1928 High	1928 Low	1927 Aver.	1914 July
Chrysarobin, 50 lb tins	lb.	3.65	3.75	3.75	3.65	3.65	2.40
Cinchonine Alk, 100 oz tins	oz.	.....	.38	.38	.38	.38	.08
Crystal	oz.	.65	.68	.68	.65	.65	.13
Sulfate, 100 oz tins	oz.	.....	.25	.25	.25	.25	.06
Cinchonidin Sulfate, 100 oz tins	oz.	.....	.35	.35	.35	.35	.15
Cocaine Alk, USP, 1 oz vial	oz.	.....	11.07	11.07	11.07	10.65	3.85
Hydrochloride, USP, 1 oz vial, 25 oz lots	oz.	.....	8.50	8.50	8.50	.....	2.65
Cocoa Butter, 12 lb boxes	lb	.42	.48	.50	.42	.50	.35
Codeine							
Codeine Alk, 1 oz vials, 10 lots	oz.	.....	10.87	10.87	10.87	9.90	5.75
Hydrobromide	oz.	.....	7.92	7.92	7.92	7.92	5.50
Hydrochloride	oz.	.....	9.87	9.87	9.87	8.90	5.50
Nitrate, oz vl 10 oz lots	oz.	.....	8.80	8.80	8.80	8.80	5.50
Phosp. oz vl, 10 oz lots	oz.	.....	8.42	8.42	8.42	7.60	5.25
Salicylate	oz.	.....	7.25	7.25	7.25	7.25	5.25
Sulfate, oz vl, 10 oz lots	oz.	.....	8.92	8.92	8.92	7.69	5.50
Cod Liver Oil							
Cod liver Oil Nor., 30 gal bbls	bbl.	43.00	45.00	48.00	38.00	38.25	17.00
Newfoundland	bbl.	.....	46.00	46.00	46.00	45.60	62.50
Colchicino Alk, USP, 1 oz vl	oz.	.....	20.00	20.00	20.00	20.00	28.15
Salicylate, 1 oz vls	oz	.....	35.50	35.50	35.50	35.50	20.00
Collodion, USP, 30 lb drs	lb.	.....	.23	.23	.23	.23	.22
600 lb drums	lb.	.....	.22	.22	.22	.22	.27
Flexible drums	lb.	.24	.25	.25	.24	.24	.33
Copper Acetate Normal, CP, jars incl	lb.	.....	.75	.75	.75	.75	.35
Arsenite, tins	lb.	.....	.39	.39	.39	.40	.75
Iodide, 5 lb bot	lb.	.....	5.65	5.65	5.65	5.65	4.40
Corn Syrup, 42 deg. 50 gal bbls	100lb	4.21	4.46	4.46	3.31	3.31	2.16
Cream Tartar, USP, 300 lb bbls	lb.	.26¾	.27	.27	.26	.25	.24
Imp. powd. 224 lb bbls	lb.	.25¾	.26½	.27¼	.25¼	.25	.24
Creosote, USP, 42 lb cbys	lb.	.40	.42	.42	.40	.40	.51
Carbonate, 150 lb	lb.	1.50	1.60	1.60	1.50	1.60	1917
Cresol, USP, 400 lb drums	lb	.....	.20	.20	.20	.22	.53
500 lb drums	lb.	.....	.20	.20	.20	.21	.07
Diethyl Phthalate, 25 lb cn	lb.	.....	.40	.40	.40	.40	.....
1000 lb drums	lb.	.24	.25	.25	.24	.27	.....
Digitalin							
Digitalin Pure, 1 oz vial	oz.	15.00	15.50	15.50	15.00	10.63	6.25
Dionin, see Morphine Ethyl		.....	.....	.....	.....	.....	.....
Dover's Powder, USP, 5 lb tin	lb.	2.45	2.50	2.50	2.45	1.65	26.00
Duboisine Sulfate, 1 oz vl	oz.	.....	30.07	30.07	30.07	30.85	1918
Emetine Alk, 15 gr vial	oz.	.....	.85	.85	.85	.07	45.00
Hydrochloride, USP, 1 oz vl	oz.	35.00	36.00	36.00	35.00	32.70	1.80
15 grain vials	oz.	2.50	2.70	2.70	2.50	2.50	1.00
Epsom Salts, USP, 200 lb bbls	100 lb.	2.25	2.50	2.50	1.85	1.95	1.00
Imp. 100 lb bbls	100 lb.	1.95	2.00	2.00	1.95	7.60	5.50
Ergotin Bonjean, 1 lb jars	lb.	15.25	15.50	15.50	15.25	35.00	41.50
Eserine Alk, 1 oz vials	oz.	.....	40.00	40.00	40.00	40.00	25.50
Salicylate, 1 oz vials	oz.	.....	40.00	40.00	40.00	40.00	25.50
Sulfate, USP, VIII 1 oz vials	oz.	.....	40.00	40.00	40.00	.....	.....
Ether							
Ether, USP, 55 lb drums	lb.	.....	.15	.16	.15	.13	.16
Anaesthesia, 55 lb drums	lb	.....	.20	.21	.20	.19	.16
USP, 1880 55 lb drums	lb	.....	.37	.38	.37	.....	.24
Nitrous, 1 lb bot	lb.	.....	.95	.95	.95	.91	.48
Ethyl Chloride, 200 lb bot	lb.	.24	.25	.25	.24	.24	.....
Ethyl Iodide, 5 lb bot	lb.	.....	6.25	6.25	6.25	6.25	4.75
Formaldehyde, USP							
100 lb cbys lc-l wks	lb.	.10	.10½	.10½	.08¾	.11	.09½
Furfural, 500 lb drums	lb.	.....	.17½	.17½	.17½	.17½	.....
Gall Extract	lb.	.20	.21	.21	.20	.20	.....
Gelatin, USP, Silver, 100 lb. cs	lb.	.55	.60	.60	.55	.60	.....
Pure Food, 50 lb bbls	lb.	.53	.55	.55	.53	.55	.....
Sheets	lb.	.....	.....	.....	.....	.53	.....
Glucose, (grape sugar) dry 70° bags c-l NY	100 lb.	3.14	3.24	3.24	3.14	3.14	.....
Glycerin							
Glycerin, CP 550 lb drums	lb.	.15	.15½	.19	.15	.25	.19¾
Goa Powder, see Chrysarobin							
Glycyrrhizin Ammon, tins	lb.	.....	3.00	3.00	3.00	3.00	1.85
Gold Chloride, bottles	oz.	12.00	12.50	12.50	12.00	12.00	10.15
Guaiacol, liq. USP, 100 lb cbys	lb.	1.75	2.25	2.25	1.75	1.75	1.60
Crystals	lb.	2.25	2.50	2.50	2.25	2.25	2.75
Benzoate, 1 lb bottles	lb.	.....	13.00	3.00	13.00	13.00	.....
Carbonate, 5 lb boxes	lb.	1.80	2.50	2.50	1.80	2.50	2.55
Haarlem Oil, bot 6 gr cases	gr	.....	3.25	3.25	3.25	3.25	1.67
Imported, 5 gross cases	gr.	.....	3.50	3.50	3.50	3.50	1.65
Halazone, 5 lb bot	lb.	2.75	3.25	3.25	2.75	2.75	.....
Hexamethylene							
Hexamethylenetetramine, USP, 100 lb drums	lb.	.52	.54	.56	.52	.60	1918
Homatropine Hydrobrom, USP	oz.	.....	14.50	14.50	14.50	14.50	87.00
5 oz and 1 oz vials	oz.	.....	13.50	13.50	13.50	13.50	87.00
Hydrastine Alk, USP, 1 oz vial	oz.	20.50	21.00	21.00	20.50	20.50	21.50
Hydrochlide, USP, 1 oz vials	oz.	20.50	21.00	21.00	20.50	20.50	21.50
Sulfate, 1 oz vial	oz.	22.50	23.00	23.00	22.50	25.07	22.50
Hydrastinine Hydrochloride, USP, 15 gr vials	oz.	.....	40.00	40.00	40.00	40.00	.....
Hydrogen Peroxide, USP, soln 375 lb bbls	lb.	.04	.05	.05	.04	.04	.03½
Hyoscine Hydrobrom, USP, 1 oz vials	oz.	.....	13.57	13.57	13.57	13.57	51.00
5 oz, 1 oz vials	oz.	13.07	13.57	13.57	13.07	13.07	.....
Hyoscyamine Alk, crystals, 1 oz vials	oz.	.....	25.07	25.07	25.07	25.07	14.00
Amorphous, 1 oz vial	oz.	.....	75.07	75.07	75.07	75.07	55.00
Hyoscyamine							
Hydrobromide, USP, 1 oz vial	oz.	.....	35.07	35.07	35.07	35.07	13.00
Sulfate, 1 oz vial	oz.	.....	25.07	25.07	25.07	25.07	13.00
Hypoquinone, 100 lb kegs	lb.	.....	1.25	1.25	1.25	1.25	.53
Ichthyol, tins	lb.	4.00	4.25	4.25	4.00	4.00	1918
Iodide Arsenous, 5 lb bot	lb.	.....	5.20	5.20	5.20	5.20	3.70
Arsenous-Mercuric soln, 5 lb bottles	lb.	.....	.26	.26	.26	.26	.16

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FINE AND MEDICINAL CHEMICALS ∾ TECHNICAL CHEMICALS ∾ INTERMEDIATES

Standard Purchasing Power of the Dollar: July 1914 $1.00 - Jan. 1927 68.7c - July 1927 71.7c - April 1928 67.8c

Cocoa Butter — During the past month the market has become firmer although there have been no price changes. This firmness is due to better demand from consumers and reduced competition among sellers.

Cod-liver Oil — Reports from Norway at the beginning of this month indicate that the weather has continued good and the catch had proved satisfactory. They also indicate that the fishing season is practically over in most sections and production of oil this season will prove to be about 20 per cent. short of that of last year. At that time, the catch and the production of cod-liver oil for the whole of Norway amounted to 53,400,000 cod and 1,144,518 gallons of oil, as compared with 55,600,000 cod and 1,682,538 gallons of oil in 1927. The improved fishing conditions, however, lead to somewhat lower prices, so that quotations here are now at $43.00 @ $45.00 per barrel, a decline of $2 @ $3 per barrel since last reported.

Corn Syrup — Prevailing strength and high prices in the grain market have lead to further price advances on this commodity since last reported. The advance during the month has totaled 15c per 100 pounds, so that quotations are now at $4.21 @ $4.46 per 100 pounds. Added to these conditions is the fact that demand continues good and competition is limited, so that the market is very strong with still an upward tendency.

Cream of Tartar — High prices in the raw material market have contributed to the strength of this market although prices have remained unchanged during the month at 26¾c @ 27c lb. Lack of demand for imported material has lead to some price cutting during the month so that quotations are now at 25¾c @ 26¼c lb.

Creosote — Prices have been firm despite rather slight demand at the present time. U. S. P. is now quoted at 40c @42c lb. and carbonate at $1.50 @ $1.60 lb.

Dover's Powder — Despite subnormal demand existing at present and the fact that ipecac has declined in price, there have been no price changes in this commodity during the past month. Prices remain at $2.45 @ $2.50 lb.

Emetine Hydrochloride — Manufacturers continue to quote $35.00 @ $36.00 oz. while apparently unlimited quantities are being offered by second hands at $26.00 @ $28.00 oz. This wide discrepancy gives substance to the report that considerable price cutting has been going on by producers.

Ergotin — Prices have been strongly maintained without regard to demand,

		Current Market	1928 High	1928 Low	1927 Aver.	1914 July
Iodine, crude, 200 lb kegs	lb.	4.20	4.25	4.20	4.20	3.30
Resublimed, 10 lb tars	lb.	4.65	4.70	4.65	4.65	3.55
Tincture demis	gal.	4.55	4.65	4.55	4.65	.....
Iodoform, powd 10 lb bot	lb.	....	6.00	6.00	6.00	4.00
Iron Salts						
Iron & Ammonium Citrate, USP, 50 lb cans	lb.	.64	.66	.66	.64	.67½	.54½
& Ammonium Oxalate, 25 lb box	lb.	.36	.38	.38	.36	.36	.28
& Ammonium Sul, CP, jars incl	lb.	.....	.25	.25	.25	.27	.20
Bromide	lb.	1.10	1.22	1.22	1.10	1.10	.65
Carbonate Mass, (Blaude 100 lb bags)	lb.	.....	.18	.18	.18	.30	.18
Cacodylate, 100 lb bot	lb.	.....	7.50	7.50	7.50	8.00	16.00
Chloride, USP, lump 400 lb bbls	lb.	06	.08	.08	.05½	.05½	.06½
Citrate, USP, VIII 25 lb can	lb.	.94	1.01	1.01	.94	.94	.55½
Hypophosphite, 5 lb cans	lb.	1.55	1.65	1.65	1.55	1.55	1.10
Iodide, 1 lb bottles	lb.	.....	4.28	4.28	4.28	4.28	2.40
Nitrate, kegs	lb.	.....	.36	.36	.36	.09	.50
Oxalate, Scales, 25 lb cans	lb	.....	.65	.65	.65	.88	.....
Phosphate, USP, 50 lb cans	lb.	.....	.69	.69	.69	.69	.54½
& Potas Oxalate, 250 lb bbl	lb.	.....	.49	.49	.49	.49	.26
& Potas Tartarte, tins	lb.	.....	.88	.90	.90	.88	.55
Pyrophosphate, USP, 50 lb	lb.	.74	.80	.80	.74	.74	.54½
& Sod Oxalate, 24 lb box	lb.	.....	.30	.30	.30	.32½	.28
Sulfate, USP, crys bbls	lb.	.04½	.04	.04	.04½	.04½	.03½
Ferrous dried bbls	lb.	.....	.08	.08	.08	.08	.06
Valerate, tins	lb.	2.75	3.00	3.00	2.75	2.75	1.30
Jalap Resin, USP lumps, 5 lb tins	lb.	.....	4.00	4.00	4.00	4.00	.....
Powdered, tins	lb.	....	4.65	4.65	4.65	4.65	.....
Lead Acetate, USP, 100 lb kegs	lb.	.15	.18	.18	.15	.15½	.14
Iodide, USP, VIII 5 lb bot	lb.	3.20	3.40	3.40	3.20	3.20	2.50
Lecithin, 5 oz jars	oz	1.00	1.30	1.30	1.00	1.00	.95
Licorice Ext Mass, cases	lb	.14	.20	.20	.14½	.14½	1918
Compound powder, bbls	lb.	.11	.13	.13	.11	.11	.16½
Powdered	lb.	.28	.34	.34	.28	.27	.29
Lithium Carbonate, 250 lb bbls	lb.	1.50	1.60	1.60	1.50	1.50	.67
Citrate, USP, 100 lb kegs	lb.	.....	1.70	1.70	1.70	1.70	1918
Iodide, 5 lb. bottles	lb.	.....	5.40	5.40	5.40	5.40	4.10
Lobeline Sulfate, ¼ oz vial	oz.	.....	8.75	8.75	8.75	6.25	.....
Luminal, see Phenylethylmalonylurea							
Magnesium Salts							
Magnesium Carbonate, USP, 100 lb bbls	lb.	.....	.12	.12	.12	.12	.05½
English, oz blocks	oz.	.16	.18	.18	.16	.16	.....
Glycerophosphate, 5 lb tins	lb.	3.20	3.25	3.25	3.20	3.20	2.13
Hypophosphite, 5 lb cans	lb.	.....	1.05	1.05	1.05	1.05	1.15
Oxide, USP, light 100 lb bbls	lb.	.....	.42	.42	.42	.42	.22
USP, heavy 250 lb bbls	lb.	.....	.50	.50	.50	.50	.27
Salicylate, 100 lb kegs	lb.	....	1.10	1.10	1.10	.49	.70
Stearate, bbls	lb	.23	.25	.25	.23	.23	.....
Manganese Dioxide, precip. 100 lb kegs	lb	.40	.50	.50	.40	.....	.40
Glycerophosphate, 5 lb tins	lb.	2.90	3.00	3.00	2.90	2.90	1918
Hypophosphite, USP, VIII 5 lb cans	lb.	1.35	1.40	1.40	1.35	1.35	1.10
Iodide, 1 lb bottles	lb	6.40	6.65	6.65	6.40	6.40	4.35
Sulfate, N. F	lb.	.....	.27	.27	.27	.27	.26
Menthol, USP, 60 lb cases	lb.	4.10	4.35	4.50	4.10	4.30	2.95
Synthetic, cases	lb.	3.25	3.50	3.50	3.25	3.37½	.....
Mercury							
Mercury Metal, 75 lb flasks	fl.	123.00	124.00	127.00	120.00	116.67	37.50
Bichloride, crys 25 lb box	lb.	.....	1.81	1.81	1.81	1.58	.55
Gran powd, 100 lb kegs	lb.	.....	1.65	1.65	1.65	1.51	.52
Bisulfate, 25 lb boxes	lb.	.....	1.62	1.62	1.62	1.57½	.42
Blue Mass, 25 lb boxes	lb.	.....	1.03	1.03	1.03	.90	.40
Powd, 25 lb boxes	lb.	.....	1.04	1.04	1.04	.95	.45
Blue Ointment USP, 50%, 25 lb cans	lb.	.....	1.29	1.29	1.29	.87½	.....
Dilute 30%, 25 lb cans	lb.	.....	.92	.92	.92	.86½	.35
33⅓% mercury	lb.	.....	.94	.94	.94	.35	.35
Calomel, 50 lb boxes	lb.	.....	2.05	2.05	2.05	1.88	.60
English	lb.	2.75	2.80	2.80	2.75	1.90	.58
Iodide, green, 25 lb jars	lb.	.....	4.80	4.80	4.80	4.54	2.45
Red, USP, 25 lb jars	lb.	.....	4.89	4.89	4.89	4.61	2.70
Yellow, USP, VIII, 25 lb jars	lb.	4.80	4.80	4.80	4.80	4.50	2.45
Red precip, USP, 25 lb boxes	lb.	2.17	2.17	2.17	2.17	1.92	.75
Powd., USP, 25 lb boxes	lb.	2.17	2.17	2.17	2.17	1.98	.81
White precip, USP, 25 lb boxes	lb.	.....	2.20	2.20	2.20	2.03	.75
Powd., USP, 25 lb boxes	lb.	.....	2.25	2.25	2.25	2.25	.81
Salicylate, 25 lb bot	lb.	.....	2.32	2.32	2.32	2.32	1.50
With chalk, USP, 25 lb boxes	lb.	.....	.93	.93	.93	.87	.39
Methanol (Wood Alcohol), Pure 1c-1 drs	gal.	.....	.48	.60	.60	.....	.....
Methyl Salicylate							
Methyl Salicylate, USP, 50 lb cans	lb.	.....	.42	.42	.42	.45	1918
Methylene Blue, USP, med 5 lb cans	lb.	2.00	2.05	2.05	2.00	1.70	1.00
Milk powd, 150 lb bbls	lb.	.14	.15	.15	.14	.14	.11
Morphine Alk, USP, 5 oz tin	oz.	.....	10.15	10.15	10.15	9.32	1918
Acetate, 5 oz tins	oz.	.....	8.25	8.25	8.25	7.41	5.30
Hydrobromide, 5 oz tins, 10 oz lots	oz.	.....	8.35	8.35	8.35	7.52	5.50
Hydrochloride, 5 oz tins, 10 oz lots	oz.	.....	8.35	8.35	8.35	7.52	5.30
Ethyl Hydrochloride, 5 oz tins, 10 oz lots	oz.	.....	9.85	9.85	9.85	9.00	6.45
Sulfate, 5 oz tins, 10 oz lots	oz.	.....	8.35	8.35	8.35	7.35	4.95
Naphthalene Flake, 175 lb bbls wks	lb.	.04½	.05	.05	.04½	.04½	.02½
Balls, 250 lb bbls wks	lb.	.05½	.06	.06	.05½	.05½	.02½
Oil Mineral White, 50 gal bbls 80-85 vis	gal.	.60	.65	.65	.60	.67	.....
85-90 vis	gal.	.65	.70	.70	.65	.65	.....
125-130 vis	gal.	.70	.80	.80	.70	.71	.....
290 vis	gal.	1.00	1.10	1.10	1.00	.99	.....
Oil Mineral							
Russian 110-115 vis	gal.	.70	.75	.75	.70	.72	.....
150-155 vis	gal.	.73	.80	.80	.67	.76	1918
325-335 vis	gal.	.85	.90	.95	.80	.86	.30

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Chemicals

Standard Purchasing Power of the Dollar: July 1914 $1.00 - Jan. 1927 68.7c - July 1927 71.7c - April 1928 67.8c

because of conditions existing in the raw material market. Sales have been subnormal as all buyers have adopted a very conservative policy with regard to this market. Is now quoted at $15.25 @ $15.50 lb.

Ether — There have been some reports of price shading on large business, but in general, normal demand has tended to keep prices firm at quoted levels.

Formaldehyde — Keen competition and unsettled conditions in the raw material market brought about a revision in manufacturers' prices so that U. S. P. in carboys is now quoted at 10c @ 10½c lb. It is still possible to buy resale material considerably under this figure.

Glycerine — No activity continues to characterize this market. Sellers make no effort to push sales and buyers no effort to buy. Everybody seems willing to wait for more promising conditions. C. P. grade seems firmer than the crude but sales have been confined to small amounts moving mainly to small consumers. Prices are at 15c @ 15½c lb. in drums which marks a further decline of ½c lb. since last quoted.

Guaiacol Carbonate — Demand has been very small but no price weakness is evident. Quotations are at $1.80 @ $2.50 lb. depending upon seller and quantity.

Haarlem Oil — Recent rumors to the effect that an advance in the price of imported oil was quite possible, resulted in stimulating demand, but as yet, no price changes have been announced. Imported is quoted at $3.50 gr. and domestic at $3.25 gr.

Hexamethylenetetramine — Decline in price of raw material and keen competition lead to a decline in price of 2c lb. during the past month. This has resulted in placing the market on a more uniform basis, although at the same time it has made it increasingly difficult for importers to do business. Prices are now at 52c @ 54c lb.

Hydrastine Alkaloid — Lack of demand has lead to keen competition. Quoted prices have been maintained at $20.50 @ $21.00 oz. although resale material is available at $19.00 @ $20.00 oz.

Menthol — Conditions here have been unchanged and are beginning to become stagnant with the passing of what is normally the best consuming season. Keen competition has kept prices unchanged during the month at $4.10 @ $4.35 lb., which is below replacement costs. Reports from Japan still indicate that the market there is strong. Refiners

		Current Market		1928 High	1928 Low	1927 Aver.	1914 July
Oxgall, Purified, 5 lb bot	lb.	1.75	2.50	2.50	1.75	2.00	1918
USP, 5 lb bot	lb.	2.00	2.50	2.50	2.00	1.75	1.44
Oxyquinoline Sulfate, tins	lb.	8.50	9.25	9.25	8.50	8.50	.....
Pancreatin, USP, 5 lb bot	lb	.....	2.50	2.50	2.50	2.44	2.97
Paraffin, refd, 200 lb cs slabs 118-120 deg M P.	lb.	.08	.09	.09	.08	.08	.....
128-132 deg M P.	lb.	.07½	.07½	.07½	.07½	.07½	.....
Para-Aldehyde, USP, 100 gal drums	lb.	.67	.77	.77	.67	.67	.38
Paraformaldehyde, USP, 100 lb cases	lb.	.40	.42½	.47½	.40	.50	.40
Pepsin, USP, 5 lb bottles, 1:3000	lb.	.....	2.50	2.50	2.50	2.45	2.50
1:6000	lb.	.....	5.00	5.00	5.00	4.90	5.00
1:10000	l'q	.....	.835	8.35	8.35	8.18	8 25
Peptone, powd, 5 lb bot	lb					1 71	1.42
Petrolatum							
Petrolatum, Lily White, USP, 400 lb bbls	lb.	.09	.10	.10	.09	.09	.07
Snow White, USP, 400b bbls	lb	.12½	.13½	.13½	.12½	.12½	.10
Phenolphthalein, USP, 100 lb drums	lb.	1.10	1.20	1.20	1.10	1.27	1918
5 lb cans 100 lb lots	lb.	1.23	1.30	1.30	1.23	1.37	1.15
Phenylethylmalonylurea, 1 oz pkg	oz.	.....	5.50	5.50	5.50	5.50	.....
Pilocarpine Hydrochloride, USP, 1 oz vials 25 oz lots	oz.	.....	3.25	3.25	3.25	3.25	2.45
Nitrate, 25 oz lots	oz.	.....	3.25	3.25	3.25	3.25	2.45
Single ounce	oz.	.....	3.50	3.50	3.50	4.50	2.55
Alkaloid, 15 gr vials	vl.	.....	.75	.75	.75	.75	.50
Piperazine Hydrate, 1 lb bot	lb	.....	15.00	15.00	15.00	15.00	.....
Piperadine, 25 oz bottles	lb	.....	8.00	8.00	8.00	8.00	.....
Popodhyllin 5 lb bottles	lb.	.....	4.50	4.50	4.50	4.50	2.82
Second hands	lb	3.90	4.00	4.00	3.90	3.96	.....
Potassium Salts							
Potassium Acetate, USP, 100 lb kegs	lb.	.29	.30	.30	.29	.29	.16
Bicarb, USP, crys 320 lb bbls	lb.	.08½	.09	.09	.08½	.13	.06½
Bromide, USP, crys 100 lb cs	lb	.42	.43	.43	.42	.45½	.39
Citrate, USP, 50 lb bbl	lb.	.51	.53	.55	.51	.51	.47
Guaiacol Sulfonate	lb	1.95	2.25	2.25	1.95	1.81	1.85½
Hypophosphite, 10 lb cans	lb	.80	.85	.85	.80	.80	.61
Iodide, USP, 100 lb cases	lb.	3.50	3.55	3.60	3.25	3.54	2.95
Lactophosphate, 4 oz bot	lb.	.....	.90	.90	.90	.90	1.25
Permangan, USP, crys, 100 lb drs wks	lb.	.15	.16½	.16½	.15	.15	.09½
Phosphate dibasic pure, kegs	lb.	.....	.49	.49	.49	.54	.25
Salicylate, 25 lb cans	lb.	.....	1.18	1.18	1.18	.94	.50½
Sulfate, USP, VIII, 100 lb kegs	lb	.13	.15	.15	.13	.15	.05
Sulfocyanide, CP 15 lb jars	lb.	.....	.50	.50	.50	.50	.44
Tartrate, CP, tins	lb	.....	.65	.65	.65	.65	.36
Pyrogallol, USP, see Acid Pyrogallic							
Quinidine Alk, 100 oz tins	oz.	.70	.75	.75	.70	.70	.35
Sulfate, 100 oz tins	oz.	.....	.50	.50	.50	.50	.23
Quinodine, see Chinodin							
Quinine Salts							
Quinine Sulfate, USP, American 100 oz tins	oz.	.....	.40	.40	.40	.50	.26
1 oz tins, 100 oz lots	oz	.....	.47	.47	.47	.57	.26
Dutch, 100 oz tins	oz.	.....	.40	.40	.40	.50	.....
Java, 100 oz tins	oz.	.....	.40	.40	.40	.40	.25
Japanese 100 oz tins	oz.	.....	.40	.40	.40	.40	.....
Quinine Acetate	oz	.....	.78	.78	.78	.78	.54
Arsenate	oz.	.....	.78	.78	.78	.78	.49
Benzoate	oz	.....	.78	.78	.78	.78	.....
Bisulfate, USP	oz.	.....	.40	.40	.40	.40	.26
Resale	oz.	.37	.39	.39	.37	.37	.....
Citrate	oz.	.....	.51	.51	.51	.51	.46
Dicarbonate, 1 oz tins	oz.	.....	2.56	2.56	2.56	2.51	.....
Dihydrobromide	oz.	.....	.54	.54	.54	.54	.42
Dihydrochloride, USP	oz.	.....	.54	.54	.54	.54	.48
Ethyl Carbonate, 16 oz tins	oz.	.....	.58	.58	.58	.62	1.15
Ferrocyanide	oz.	.....	.78	.78	.78	.72	.48
Formate	oz.	.....	.73	.73	.73	.73	1.16
Glycerophosphate	oz.	.....	.80	.80	.80	.80	.93
Hydrobromide, USP	oz.	.....	.50	.50	.50	.50	.44
Hydrochlorosulfate	oz.	.....	.54	.54	.54	.54	.54
Hydrochloride & Urea, USP	oz.	.....	.74	.74	.74	.75	.49
Hypophosphite	oz.	.....	.70	.70	.70	.70	.49
Lactate	oz.	.....	.66	.66	.66	.66	.49
Phenolsulfonate	oz.	.....	.78	.78	.78	.78	.37
Phosphate	oz.	.....	.62	.62	.62	.62	.45
Salicylate, USP	oz.	.....	.52	.52	.52	.52	.43
Tannate, USP	oz.	.....	.41	.41	.41	.41	.31
Tartrate	oz.	.....	.78	.78	.78	.78	.44
Valerate	oz.	.....	.78	.78	.78	.78	.49
& Urea Hydrochloride, USP	oz.	.....	.88	.88	.88	.88	.57
Rennet, N. F. 5 lb 1:25,000	lb.	2.95	3.50	3.50	2.95	2.95	.....
Resorcinol							
Resorcinol, USP, 25 lb cans	lb.	1.70	1.75	2.00	1.70	1.85	.80
Rochelle Salt, USP, 225 lb bbl	lb.	.23	.23½	.23½	.23	.22	.17½
Imp, USP, 300 lb bbls	lb.	.....	.23	.23	.23	.21	.18
Rock Sugar, 5 lb boxes	lb.	.....	.15	.15	.15	....	.....
Saccharin, USP, 10 lb cans	lb.	1.70	1.80	1.80	1.70	1.70	2.25
USP, Soluble, 10 lb cans	lb.	1.75	1.85	1.85	1.75	1.75	2.25
Salicin, USP	lb	.....	4.86	4.86	4.86	4.42	3.90
Salol, USP, 100 lb drums	lb.	.....	.90	.90	.90	.90	.53
Saltpetre, powd, bbls wks	lb.	.06½	.08½	.08¼	.06½	.06½	.05½
Santonin, USP, bulk	lb.	141.00	145.00	141.00	145.00	141.00	28.70
Saponin, refined	lb.	1.30	1.50	1.50	1.30	1.26½	1.25
Scopolamine, see Hyoscine	lb.						

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are refusing to quote for future delivery and when they do so, quoted prices are higher than those now existing.

Mercury — The market has been fairly steady during the past month although the price tendency has been downward. The metal is now quoted at $123.00 @ $125.00 per flask, which is $1 per flask lower than when last reported. Movement into consuming channels is still very small. The comparative steadiness of the metal has had the effect of maintaining quoted prices on mercurials, where buying has been done in normal quantities and competition kept at a minimum.

Menthanol — Keen competition and weak conditions prevailing in the market has lead to lower prices on pure, which is now being quoted at 48c gal.

Methyl Salicylate — Considerable competition in this market has made resale material available at 40c lb., although quoted prices are still at 42c lb. in tins.

Mineral Oil — Activity has slowed up considerably in this market which has become easy. Plenty of stocks are now available. Prices, as yet, are unchanged, 110-115 vis. being quoted at 70c @ 75c gal., 150-155 vis. at 73c @ 80c gal., and 325-335 vis. at 85c @ 90c gal.

Paraformaldehyde — Lower costs of raw material were reflected by a decline of 5c lb. in price during the past month. The market has been steady since that time at quoted price of 40c @ 42½c lb.

Potassium Iodide — Manufacturers report that a price advance is imminent. They say that the cost of production is $3.40 lb. and in order to make a legitimate profit, this material should sell at about $4.30 lb. Present quotations are at $3.50 @ $3.55 lb.

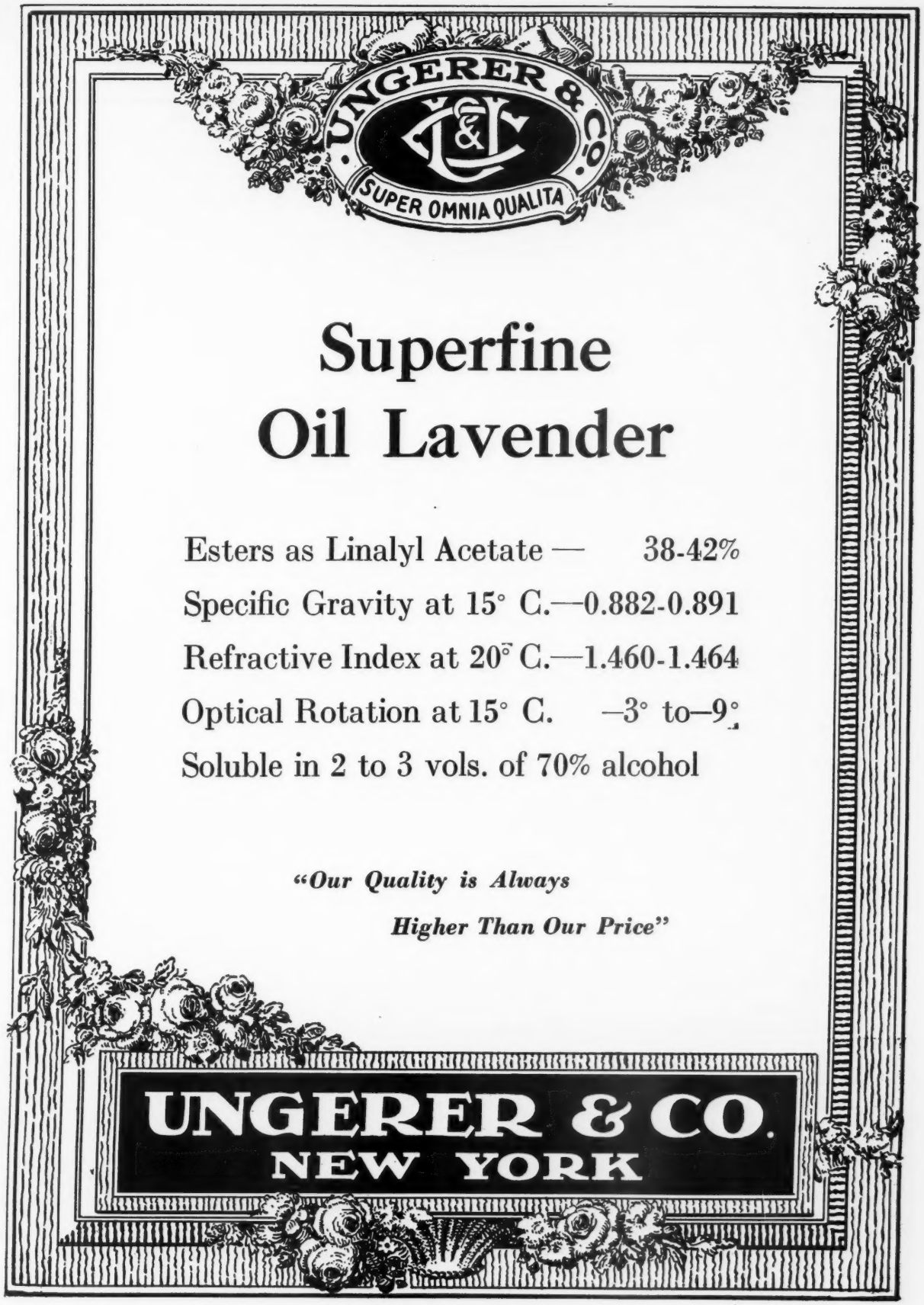
Quinine — The market is as yet unaffected by abnormal conditions existing in the raw material market.

Rochelle Salt — Firm with an upward price tendency although to date quoted prices remain at 23c lb.

Silver Nitrate — During the past month has registered a decline of ¼c lb. in price. Now quoted at 40¾c @ 42¾c lb.

Strychnine Sulfate — An advance in price seems to be indicated in this market. Manufacturers state that at the present price of nux vomica, which contains but one per cent. strychnine, it costs them $3.00 per lb. or 18c oz. for the strychnine in the bean. Added to this is the fact that it costs 30c oz. to extract the material from the bean. This makes a total cost of production of 48c lb. which compares with quoted prices of 38c @ 46c lb.

		Current Market	1928 High	1928 Low	1927 Aver.	1914 July
Siedlitz Mixture, 250 lb bb	lb.	.....	.....	.....	.17½	.14
Silver						
Silver Metal, American	oz.	.....	.57½	.57½	.57½	.64	.....
Iodide, 16 oz lots	oz.	....	.69	.69	.69	.69	.83
Nitrate, 10 oz bottles	oz.	.40½	.42½	.42½	.40½	.41	.35
Nucleinate, 1 oz bottles	oz.	.....	.46	.46	.46	.46	1.10
Bulk	oz.	.....	.37	.37	.37	.37	1.00
Proteinate, 1 oz bottles	oz.	.....	.41	.41	.41	.41	.70
Bulk	oz.	.....	.32	.32	.32	.32	.65
Soap, Castile, 50 lb boxes	lb.	.....	.25	.25	.25	.25	.11½
USP, powd., 250 lb bbls	lb.	.28	.30	.30	.28	.28	.....
USP, green, 450 lb bbls	lb.	.07½	.07½	.07½	.07½	.07½	.08
Sodium Salts							
Sodium Benzoate, USP, 100 lb bbls	lb.	.50	.55	.55	.50	.50	.23½
Bromide, USP, 100 lb kegs	lb.	.42	.43	.43	.42	.44	.45
Cacodylate, USP, 25 lb bot	lb.	4.75	5.90	6.10	4.75	4.80	3.75
Citrate, USP, X 50 lb kegs	lb.	.45	.47	.47	.45	.45	.48½
USP VIII, 50 lb kegs	lb.	.38	.40	.40	.38	.38	1918
Glycerophosphate, USP, crys 25 lb cans	lb.	1.40	1.55	1.55	1.40	1.40	1.90
Powder, 25 lb tins	lb.	1.45	1.60	1.60	1.45	1.45	.....
Soln, USP, 25 lb tins	lb.	1.05	1.20	1.20	1.05	1.05	1.10
Hypophosphite, USP, 25 lb cans	lb.	.70	.75	.75	.70	.70	.59
Iodide, USP, 25 lb jars	lb.	4.25	4.30	4.30	4.25	4.25	3.30
Phosphate (Mono-Sodium), 100 lb kegs	lb.	.30	.31	.31	.30	.30	.45
Di-Sodium USP, granular, 275 lb bbls	lb.	.07½	.08	.08	.07½	.07½	.04½
Pyrophosphate, 100 lb kegs	lb.	.....	.29	.29	.29	.26	.27
Salicylate, 100 lb kegs	lb.	.....	.47	.47	.47	.47	.27
Silicate, 41° drums	lb.	.....	.01½	.01½	.01½	.01½	.01
47° drums	drm.	.....	12.00	12.00	12.00	12.00	.....
Sulfocarbolate, USP, 100 lb kegs	lb.	.....	.31	.31	.31	.31½	.19
Sulfocyanate, CP crys, jars included	lb.	...	.60	.60	.60	.60	1.25
Spartein Sulfate, USP, 25 oz bulk	oz.	.65	.70	.70	.60	.65	.33
Single oz vial	oz.	.77	.90	.90	.77	.77	.35
Starch Rice, 140 lb bags	lb.	.09	.10	.10	.09	.09	.07
Strontium Salts							
Strontium Bromide, USP, 50 lb kegs	lb.	.51	.52	.52	.51	.51	.45
Carb, 100 lb kegs wks	l.b	.....	.20	.20	.20	.22	1918
Iodide, USP, 25 lb jars	lb.	.....	4.00	4.00	4.00	4.00	3.00
Lactate, kegs	lb.	.90	1.10	1.10	.90	1.07	.90
Nitrate, 600 lb bbls NY	lb.	.08	.08½	.08½	.08	.08	.07½
Imp. bbls NY	lb.	.08	.08½	.08½	.08	.08	.07½
Salicylate, USP 100 lb keg	lb.	.....	1.10	1.10	1.10	.91	.38
Strophanthin, USP, 1 oz vial	oz.	.....	19.00	19.00	19.00	19.00	9.00
Crystals	lb.	.....	75.00	75.00	75.00	75.00	16.50
Strychnine							
Strychnine Alk, USP crys, 100 oz tins	oz	.56	.66	.66	.56	.56	.46
Powdered	oz.	.46	.56	.56	.46	.40½	1917
Japanese cans	oz.	.....	Nom.	.75	.75	.75	.....
Acetate	oz.	.....	.55	.55	.55	.55	.80
Arsenate, 25 oz cans	oz.	.....	.55	.55	.55	.55	.75
Glycerophosphite, USP	oz.	.....	.55	.55	.55	.55	1.45
Hydrobromide	oz.	.....	.55	.55	.55	.55	.80
Hydrochloride	oz.	.....	.55	.55	.55	.55	.80
Hypophosphite	oz	.....	.65	.65	.65	.65	1.05
Nitrate, USP	oz.	.55	.62	.62	.52	.52	1918
Phosphate	oz.	.....	.55	.55	.55	.55	1918
Saccharine	oz.	.....	1.15	1.15	1.15	1.15	.....
Sulfate, USP crys, powd	oz.	.38	.46	.46	.38	.38	.46
Sugar							
Sugar, refined, 275 lb bbl	100 lb.	5.80	5.90	5.90	5.80	.....	.....
Milk, USP, 200 lb bbls	lb.	.18	.20	.20	.18	.18	.12
Sulfonal, see Sulfonmethane							
Sulfonethylmethane, USP, 10 lb boxes	lb.	3.85	4.05	4.05	3.85	3.85	3.50
Sulonmethane, USP, 10 lb box	lb.	2.65	3.85	3.85	2.65	2.65	2.20
Sulfur flwrs, 100%, 25 lb box	lb	.....	.10	.10	.10	.10	.....
Washed, USP, 125 lb bbl	lb.	.....	.06	.06	.06	.06	.04½
Iodide, USP, VIII, 5 lb bot	lb.	.....	4.55	4.55	4.55	4.55	3.60
Tapioca Flour, hgh grd bgs	lb.	.05	.05½	.05½	.05	.05	.01
Tartar Emetic, USP, 300 lb bbls	lb.	.34	.36	.36	.34	.34½	.22½
Terebene, tins	lb.	.....	.85	.85	.85	.85	.50½
Terpin Hydrate, USP, 100 lb kegs	lb.	.40	.42	.47	.40	.45	.24
Terpineol, CP, 1000 lb drs	lb.	.33	.35	.35	.33	.36	Nom.
50 lb cans	lb.	.37	.38	.38	.37	.40	Nom.
Imported, 25 lb cans	lb.	.34	.37	.37	.34	.40	....
Terpinyl Acetate, 25 lb can	lb.	1.65	1.85	1.85	1.65	1.65	.....
Theobromine							
Theobromine Alk, 5 lb cans	lb.	1.90	2.25	2.25	1.90	1.95	4.32
Sod. Salicylate, 1 lb bot	lb.	.....	2.10	2.10	2.10	2.40	2.64
Sod. Benzoate, 1 oz vials	oz.	.....	1.00	1.00	1.00	1.00	.....
Thymol, USP, 25 lb tins	lb	.....	2.75	2.75	2.75	2.92	2.20
Iodide kegs	lb.	6.50	7.00	7.00	6.50	6.44	5.70
Tin	lb.	.....	.53½	.53½	.53½	.....	.....
Veratrine Alkaloid	oz	.....	2.25	2.25	2.25	2.25	1.45
Sulfate, 1 oz vials	oz.	.....	2.25	2.25	2.25	2.25	1.55
Witch Hazel Ext., 50 gal bbl	gal.	.80	1.00	1.00	.80	1.05	1918
Yohimbin Hydrochloride, 1 oz vials	oz.	2.75	3.25	3.25	2.75	3.25	.....
Resale	oz.	2.65	2.70	2.70	2.65	2.65	.....
Zinc Carb, USP, 100 lb keg	lb.	.28	.31	.31	.28	.28	.13½
Chloride, USP, 25 jars ex	lb	.24	.29	.29	.24	.24	.17
Iodide, 5 lb bottles	lb.	.....	5.22	5.22	5.22	5.22	3.45
Oxide, USP, 100 lb bbls	lb.	.17	.18	.18	.17	.14½	.14½
Stearate, USP, 50 lb bbl	lb.	.....	.22	.22	.22	.21½	.30
Sulfate, USP, 100 lb bbl	lb.	.08	.09	.09	.08	.08	.06½
Sulfocarbolate, 100 lb kegs	lb.	.....	.29	.29	.29	.29½	.19


UNGERER & Co.
SUPER OMNIA QUALITA
Superfine
Oil Lavender
Esters as Linalyl Acetate — 38-42%
Specific Gravity at 15° C.—0.882-0.891
Refractive Index at 20° C.—1.460-1.464
Optical Rotation at 15° C. –3° to–9°
Soluble in 2 to 3 vols. of 70% alcohol
"Our Quality is Always
Higher Than Our Price"
UNGERER & CO.
NEW YORK

Standard Purchasing Power of the Dollar: July 1914 $1.00 - Jan. 1927 68.7c - July 1927 71.7c - April 1928 67.8c

Essential Oils

The strong citrus oil market, aggravated by speculation, has advanced the citrus oils to record prices. Orange oil has been the leader, followed by lemon oil. These two oils are basically strong. Bergamot has followed along, as has mandarin. Ceylon is now selling above Java citronella oil, although the Ceylon is expected to advance. Peppermint oil and spearmint oil have softened and are selling at the lowest prices of the year. Eucalyptus oil is very strong.

Oil Almond — In moderate demand and steady in price. Basic conditions show no variation.

Apricot Kernel — Has declined further in price and is now offered at 44c per pound, which represents the lowest price of the year. Increased supplies are the cause.

Oil Bay — Moving in good volume with prices fairly steady.

Oil Bergamot — The speculation in orange and lemon oils and the high prices quoted for these oils in primary markets, has caused shippers abroad to advance their quotations sharply. Goods on spot are quoted sharply higher, but it is believed that some holders might shade these figures due to their goods being imported before the advance. General quotations are given at $5.65 @ $5.85 per pound. The future of the market seems to depend on the future of the market for orange and lemon oils, as bergamot will most probably follow the same course.

Oil Bois de Rose — The Cayanne product has advanced again and is now priced at $2.40 @ $2.45. The Brazilian product is unchanged. The strength of the Cayanne market is said to be due to the strength of the linaloe market, although producers talk of higher costs of cutting wood in the producing sections of bois de rose. Demand is of good volume despite the advance.

Oil Cananga — This oil has moved steadily throughout the month and has not varied in price. However, the position is none too strong.

Oil Cassia — The position is very tight, but not as tight as it was a few weeks ago. Oil is obtainable on spot at $2.30 @$2.75 as to seller, and, although this represents an advance over last month, it is lower than prices were a few weeks back. The oil held up by the Government as diluted with alcohol is the cause of the trouble. Some of this oil has been passed after the alcohol was destroyed. The alcohol is understood to

		Current Market	1928 High	1928 Low	1927 Aver.	1914 July
Natural Derivatives						
Anethol, 2 lb bot	lb.	.....	1.30	1.30	1.30	.....
Borneol, 1 lb bot	lb.	2.50	2.60	2.60	2.50	2.50	1.50
Carvol, 5 lb bot	lb.	.....	3.85	3.85	3.85	6.00	.....
Citral, 25 lb cans	lb.	.....	2.75	2.75	2.75	2.75	3.50
Citronellal, 1 lb bot	lb	3.00	3.25	3.25	3.00	3.00	2.50
Eucalyptol, USP, 50 lb cans	lb.	1.00	1.05	1.05	1.00	.90	.55
Eugenol, USP, 25 lb cans	lb.	2.75	2.90	2.90	2.75	2.75	2.00
Geraniol, domestic, 50 lb cases	lb.	2.50	2.70	2.70	2.50	2.65	4.25
Imported, 5 lb bot	lb.	2.90	3.10	3.10	2.90	3.03	4.25
Iso-Eugenol, 1 lb bot	lb.	4.25	4.50	4.50	4.25	4.25	3.25
Imported, 1 lb bot	lb.	3.70	3.80	3.80	3.70	3.82	3.25
Linalol from Bois de Rose, 5 lb bot	lb.	3.00	3.15	3.15	3.00	3.34	5.25
Menthol, 60 lb cases	lb.	4.25	4.50	4.50	4.25	4.05	3.60
less cases, 5 lb cans	lb.	....	4.85	4.85	4.85	4.95	4.50
Rhodinol, 1 lb bot	lb.	6.00	6.25	6.25	6.00	9.50	....
Saffrol, drums	lb.	.....	.27	.27	.27	.28½	.30
60 lb cans	lb.	.....	.29	.29	.29	.30½	.31
Thymol, USP, 25 lb tins	lb.	.....	2.75	2.75	2.75	3.50	2.05
Synthetic Aromatics						
Acetophenene, CP, 1 lb bot	lb	3.50	3.75	3.75	3.50	3.50	.....
Aldehyde, C 8 (Otcyl), 1 lb bot	lb.	.....	55.00	55.00	55.00	.....	.....
C 7, 1 lb bot	lb.	4.50	5.50	5.50	4.50	4.50	.....
C 9 (Nomyl), 1 lb bot	lb.	.....	140.00	140.00	140.00	87.50	.....
C 10 (Decyl), 1 lb bot	lb.	....	48.00	48.00	48.00	49.50	.....
C 14, 1 lb bot	lb.	22.50	25.00	25.00	22.50	22.50	.....
C 16, 1 lb bot	lb.	70.00	80.00	80.00	70.00	70.00	.....
Aubepine, see Anisic Aldehyde							
Amyl Acetate							
Amyl Acetate, pure, 5 gal cans	gal.	4.75	5.50	5.50	4.75	4.75	5.00
Butyrate, 1 lb bot	lb.	.....	1.90	1.90	1.90	1.96	7.00
Butyrate, 5 lb bot	lb.	.....	1.75	1.75	1.75	1.75	.....
Cinnamate, 5 lb bot	lb.	9.50	9.75	9.75	9.50	5.00	.....
Formate, 1 lb bot	lb.	.....	1.90	1.90	1.90	2.00	.....
Formate, 5 lb bot	lb.	....	1.75	1.75	1.75	1.75	.....
Phenyl Acetate, 1 lb bot	lb.	4.50	5.00	5.00	4.50	4.50	.....
Salicylate, 100 lb cbys	lb.	1.25	1.30	1.30	1.25	1.25	1.50
Imported	lb.	2.25	2.50	2.50	2.25	2.25	.....
Anisic Aldehyde, 1 lb bot	lb.	3.00	3.25	3.25	3.00	3.00	2.50
Benzaldehyde, USP, 40 lb cbys,	lb.	....	....	....	....	1.25	1918
50 lb cbys	lb.	1.25	1.35	1.35	1.25	1.25	1918
FFC, 40 lb cbys	lb.	1.3	1.45	1.45	1.35	1.86	1918
Benzoic Ether, see Ethyl Benzoate							
Benzophenone, 1 lb bot	lb.	4.50	5.00	5.00	4.50	4.50	.....
Benzyl Acetate							
Benzyl Acetate, 100 lb cbys	lb.	.90	1.10	1.10	.90	.97	.70
Alcohol, 5 lb bot	lb.	1.25	1.35	1.35	1.25	1.25	1.25
Benzoate, 5 lb bot	lb.	1.25	1.35	1.35	1.25	1.25	.75
Benzyl Benzoate		1.35	1.40	1.40	1.35	1.45	.....
Medicinal, FFC	lb.	.....	1.40	1.40	1.40	4.00	.....
Buytrate, CP, 1 lb bot	lb.	9.25	9.50	9.50	9.25	9.50	.....
Cinnamate, 1½ bot	lb.	3.00	3.25	3.25	3.00	3.00	.....
Formate, 1 lb bot	lb.	3.15	3.25	3.75	3.15	3.95	.....
Propionate, 1 lb bot	lb.	3.60	3.75	3.75	3.60	5.50	.....
Succinate, 1 lb bot	lb.	5.25	5.50	5.50	5.25	7.50	.....
Valerate, 5 lb bot	lb.	3.00	3.25	3.25	3.00	3.25	1.75
Bornyl Acetate, 1 lb bot	lb.	3.15	3.25	3.25	3.15	5.00	.....
Bromstyrol, 25 lb cases	lb.	.....	5.00	5.00	5.00	16.00	.....
Butyl Anthranilate dom, 1 lb bot	lb.					16.00	.....
Butyric Ether, see Ethyl Butyrate							
Cinnamic Acid							
Cinnamic Acid, 5 lb cans	lb.	3.25	3.50	3.50	3.25	3.25	.....
Alcohol liquid, 1 lb bot	lb.	3.25	3.50	3.50	3.25	3.55	5.00
Crystallizable	lb.	7.00	8.00	8.00	7.00	7.00	8.00
Aldehyde	lb.	2.25	2.50	2.50	2.25	2.71	1.60
Imported, 1 lb bot	lb.	7.75	9.00	9.00	7.75	7.75	.....
Citronelyl Acetate, 1 lb bot	lb.	7.75	8.00	8.00	7.75	11.25	.....
Coumarin, 25 lb cans	lb.	3.50	4.00	4.00	3.50	3.60	3.25
Decyl Alcohol	lb.	25.00	28.00	28.00	25.00	28.00	.....
Diethyl Phthlate see Chemicals							
Diphenyloxide, 25 lb tins	lb.	1.00	1.15	1.15	1.00	1.15	.....
Diphenyl Methane	lb	1.50	1.75	1.75	1.50	1.75	.....
Duodecyl Alcohol	lb.	20.00	22.00	22.00	20.00	22.00	.....
Ethyl Acetate							
Ethyl Acetate, pure, 5 lb bot	lb.	.45	.50	.50	.45	.45	3.75
Benzoate, 5 lb bot	lb	1.50	1.75	1.75	1.50	1.75	3.00
Ethyl Butyrate, 5 lb bot	lb.	1.80	2.00	2.00	1.80	2.00	10.50
Caproate, 1 lb bot	lb.	3.25	3.50	3.50	3.25	3.25	.....
Cinnamate, 1 lb bot	lb.	4.00	4.50	4.50	4.00	4.00	.....
Formate, 5 lb bot	lb.	1.00	1.25	1.25	1.00	1.00	12.00
Methyl Paracresol, 1 lb bot	lb.	3.25	3.50	3.50	3.25	3.25	.....
Phenyl Acetate, 5 lb bot	lb.	3.75	4.00	4.00	3.75	3.75	.....
Valerate, 5 lb bot	lb.	.....	3.75	3.75	3.75	3.75	.....
Salicylate, 5 lb bot	lb.	2.00	2.10	2.10	2.00	2.00	3.50
Formic Ether see Ethyl Formate							

"A Good Name....."

THOSE most interested on occasion seriously question if the time, labor and research with its attendant great expense, involved in the preparation and gratuitous distribution of scientific knowledge as set forth, for example, in that exceedingly valuable publication, Schimmel and Company's Annual Report on Essential Oils, Synthetic Perfumes, etc. is justified by sufficient practical use made of it by consumers, by those who buy and use such articles and who would be most *greatly benefited by its practical application*. These questions present themselves after contemplation of the vast amount of purchasing *solely on a price basis* and apparently without regard to any scientific control whatsoever.

Nevertheless, it is probably not entirely futile as fortunately there is evidence of an *increasing tendency* particularly among the larger consumers, among responsible firms with reputation and trade-marks to uphold, to *throw overboard* the price question in connection with Essential Oils and Aromatic Chemicals and bestow the greater importance where it properly belongs—on *reliability*, and on the *service to be rendered*. They have learned from experience, dearly bought, how *inadequate it is to consider a price without equally considering just what promise of performance that price gives*.

The manufacturer buys for use in his finished goods so many pounds of results, not so many pounds of an oil or of a chemical. He needs buy even more—insurance that his source of supply is equipped with the years of experience to *know how*, with a reputation to *stand back of* and with sufficient capital to *operate advantageously* and to *execute orders promptly*. Here are the factors upon which decision is coming more and more to be based.

Fritzsche Brothers, Inc.

Standard Purchasing Power of the Dollar: July 1914 $1.00 - Jan. 1927 68.7c - July 1927 71.7c - April 1928 67.8c

have been about six per cent. Importers are at a loss what to do since this material is bought with an irrevocable letter of credit, and future shipments might be held up after they have been paid for.

Oil Camphor — Increased strength in white camphor oil followed a temporary shortage on spot. This situation is expected to be relieved very shortly when heavy arrivals are anticipated.

Oil Citronella — A reversal of the price position of the Ceylon and Java oils has occurred. Ceylon oil is now priced above Java at 43c @ 45c per pound in drums, with the Java holding at 41c @ 43c per pound in drums. The reversal of these oils is due to a shortage of Ceylon supplies, and is doubtless aggravated by speculation. The Java has been weak for some time, but is expected to strengthen due to the fact that garanium oil has advanced and Java citronella is the source of geraniol—the synthetic substitute for geranium oil. Also when the position reverses, Java oil is used to stretch supplies of Ceylon oil. The situation is more thoroughly covered on another page of this issue.

Oil Cloves — Since the spice market is steady in position, and supplies of oil are sufficient to cover normal demand, prices are steady at unchanged figures.

Oil Eucalyptus — Increased firmness characterizes this market. The primary market is turning down cable offers from dealers here and it is quite possible that an advance is imminent. Spot supplies are none too large, and demand is good.

Oil Geranium — The firmness that has characterized this market for the past few months continues to advance prices. Bourbon oil is still priced higher than the African and is now held at $3.90 @ $4.10 per pound as to seller and quantity. The African oil has advanced further, however, and is now firm at $3.60 @ $3.65. Turkish oil has also moved up, and is priced at $3.00 @ $3.05. The situation has occurred due to the fact that the Bourbon oil is reported to in short supply, although some think that factors in Reunion are merely holding back supplies for higher prices.

Oil Lemon — Although this oil is statistically strong as indicated last month, the sharp advance that has taken place is not entirely due to this strength, but is partly due to speculation by independent speculators. Heavy buying of lemon oil for a long time past has been engaged in by speculators acquainted with the firm position of the oil. Spot Italian oil is quoted at $2.80 @ $3.10 per pound, although the lower price is only named by some dealers who happened to

		Current Market	1928 High	1928 Low	1927 Aver.	1914 July
Geranyl Acetate						
Geranyl Acetate, 1 lb bot	lb.	3.20	3.25	3.20	4.04	6.00
Butyrate, 1 lb bot	lb.	13.00	13.50	13.00	13.00	.....
Formate, 1 lb bot	lb.	12.00	12.50	12.00	12.00	.....
Glyco Ester	lb.	.90	1.00	.90	1.00	.....
Heliotropin, 100-10 lbs	lb.	1.65	1.75	1.65	1.65	1.30
Imported	lb.	1.95	2.05	1.95	2.00	1.30
Hydroxycitronellal, 1 lb	lb.	5.50	7.50	5.50	7.30	.....
Indol, CP, 1 oz bot	lb.	4.25	4.50	4.25	3.75	.....
Ionone						
Ionone, 1 lb bot 100%	lb.	6.00	7.00	6.00	6.75	.....
Alpha	lb.	4.75	6.25	4.75	7.50	.....
Beta	lb.	5.50	7.25	5.50	8.00	.....
Methyl	lb.	5.75	7.25	5.75	7.25	.....
Iso Borneol	lb.	2.15	2.25	2.15	2.25	.....
Iso Bornyl Acetate	lb.	2.80	3.00	2.80	3.00	.....
Iso-Butyl Benzoate 5 lb bot	lb.	2.75	3.00	2.75	2.75	.....
Iso-Safrol, 1 lb bot imp	lb.	1.65	1.75	1.65	1.94	.....
Domestic 5 lb bot	lb.	3.50	3.75	2.50	3.50	.....
Lynalyl Acetate, 1 lb bot	lb.	3.25	4.50	3.25	7.75	.....
Benzoate, 1 lb bot	lb.	13.00	14.00	13.00	13.00	.....
Formate, 5 lb bot	lb.	10.50	12.00	10.50	15.00	.....
Methyl Acetophenone						
Methyl Acetophenone	lb.	3.65	3.75	3.65	3.70	.....
Anthranilate, 1 lb bot	lb.	2.40	2.45	2.40	2.51	4.50
Imported	lb.	2.70	2.75	2.70	2.76	4.50
Anthranilic Acid	lb.	11.75	12.00	11.75	12.00	.....
Benzoate, 5 lb bot imp	lb.	1.90	2.00	1.90	2.00	.....
Domestic, 5 lb bot	lb.	1.75	2.00	1.75	1.75	.....
Cinnamate, 1 lb bot	lb.	3.75	4.25	3.75	3.75	3.50
Heptenone, 1 lb bot	lb.	8.50	9.00	8.50	8.50	.....
Paracresol, 1 lb bot	lb.	4.50	8.00	4.50	5.67	.....
Phenylacetate, 5 lb bot	lb.	3.75	4.00	3.75	3.75	.....
Salicylate, USP, 500 lb dr	lb.	.....	.40	.40	.43	.45
50 lb cases	lb.	.....	.42	.42	.45	.47
Mirbane, rect 1,000 lb drs	lb.	.12	.13	.13	.13	.06½
Musk Ambrette						
Musk Ambrette 1 lb cans	lb.	6.50	6.75	6.50	6.80	12.00
Ketone 1 lb cans	lb.	8.00	8.15	8.00	8.18	.....
Xylene 5 lb cans	lb.	2.25	2.35	2.25	2.39	.....
Nerolin 1 lb cans	lb.	1.40	1.50	1.40	1.48	2.00
Octyl Alcohol 1 lb bot	lb.	30.00	32.00	30.00	32.00	.....
Oenanthic Ether 1 lb bot	lb.	1.90	2.00	1.90	2.25	.....
Paracresol Methyl Ether	lb.	6.50	6.75	6.50	7.31	.....
Paracresyl Acetate	lb.	5.50	5.75	5.50	5.50	.....
Para Cymene Refd 110 gal dr	gal.	2.25	2.50	2.25	2.25	.....
Phenylacetaldehyde						
Phenylacetaldehyde 50% 1 lb bot	lb.	7.00	7.50	7.00	8.00	6.50
Imported 50%	lb.	6.25	6.50	6.25	7.00	6.50
100%	lb.	8.00	8.25	8.00	8.67	.....
Phenylacetic Acid 1 lb bot	lb.	3.00	3.25	3.00	3.00	.....
Phenyl Diacetate 1 oz bot	oz.	3.00	3.25	3.00	3.25	.....
1 lb bot	lb.	8.00	10.00	8.00	8.00	.....
Imported	lb.	7.00	7.75	7.00	7.00	.....
Phenylethyl Alcohol 1 lb bot	lb.	4.50	4.75	4.50	5.20	16.00
Phenyl Ethyl Acetate	lb.	8.25	8.75	8.25	10.00	.....
Butyrate 1 lb bot	lb.	15.00	16.00	15.00	16.00	.....
Formate, 1 lb bot	lb.	19.00	21.00	19.00	19.00	.....
Propionate, 1 lb bot	lb.	16.00	18.00	16.00	18.00	.....
Valerate, 1 lb bot	lb.	19.00	20.00	19.00	20.00	.....
Phenylpropylalcohol, 1 lb bot	lb.	15.00	16.00	15.00	15.00	.....
Skatol, 1 oz bot	lb.	4.50	7.00	4.50	4.50	.....
Terpinyl Acetate, 25 lb cans	lb.	.75	.80	.75	1.05	1.25
Imported, 25 lb cans	lb.	.85	.90	.85	1.25	1.25
Terpineol						
Terpineol, CP, 1000 lb drs	lb.	.33	.35	.33	.35	.40
50 lb cans	lb.	.37	.39	.37	.38	.45
Absolute, 25 lb cans	lb.	.48	.50	.48	.49	.....
Imported, 25 lb cans	lb.	.58	.60	.58	.39	.....
Vanillin, USP, 25 lb tins	lb.	.....	7.50	7.50	7.75	5.12
1 lb cans	lb.	.....	7.70	7.70	8.07½	5.50
Second Hands	lb.	.....	6.75	6.75	.45	.....
Valerianic Ether see Ethyl Valerate						
Yara Yara, 1 lb cans	lb.	1.50	1.60	1.60	1.50	1.50	.....

Essential Oils

Almond Bitter, USP, 5 lb bot	lb.	2.70	2.80	2.80	2.70	2.72½	3.50
Bitter, ffPA, 5 lb bot	lb.	3.00	3.25	3.25	3.00	3.00	3.35
Sweet, 56 lb cans	lb	.75	.77	.78	.75	.80	.80
Amber crude, 25 lb tins	lb.	.33	.35	.35	.33	.39	.12
Rectified, 25l b tins	lb.	.52	.55	.55	.52	.55	.32
Angelica Root, 1 lb bot	lb.	16.00	18.00	18.00	16.00	19.50	26.00
Anise Tech, 66 lb cases	lb.	.54	.56	.56	.54	.57	1.60
USP, 60 lb cans	lb.	.57	.59	.60	.57	.59	1.70
Apricot Kernel, 50 lb cans	lb.	.44	.46	.50	.44	.58	.30
Bay, 25 lb tins N. F. V., 50.55% Phenol	lb.	1.90	2.00	2.00	1.90	1.95	2.40
Terpeneless	lb.	5.80	6.00	6.00	5.80	6.00	6.50
Bergamot							
Bergamot, 25 lb coppers	lb.	5.65	5.85	5.85	4.85	5.91	5.10
Terpeneless	lb.	14.00	18.00	18.00	14.00	11.00	7.50
Artificial, 25 lb cans	lb.	2.50	3.25	3.25	2.50	2.50	3.10

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Essential Oils

Standard Purchasing Power of the Dollar: July 1914 $1.00 - Jan. 1927 68.7c - July 1927 71.7c - April 1928 67.8c

be fortunately placed in supplies brought in before the rise. Shipment prices indicate a further advance.

Oil Limes — This market is steady, but not strong as with other citrus oils. In fact the distilled oil is quite easy, while the expressed oil is firm. No radical change is expected in the position.

Oil Linaloe — Mexican oil is firm but has not advanced since last month. Demand is good but supplies are adequate.

Oil Mandarin — A sharp advance in this oil, due to a sympathetic movement with lemon and orange oils, has brought prices over a wide range of $8.75 @ $10.00 per pound.

Oil Mustard — Artificial mustard oil is lower in some directions at $1.70 per pound. Other sellers quote up to $1.80 and cannot understand how $1.70 can be done. However, the seller quoting $1.80 is reliable and states that he is making a normal at the price he is quoting.

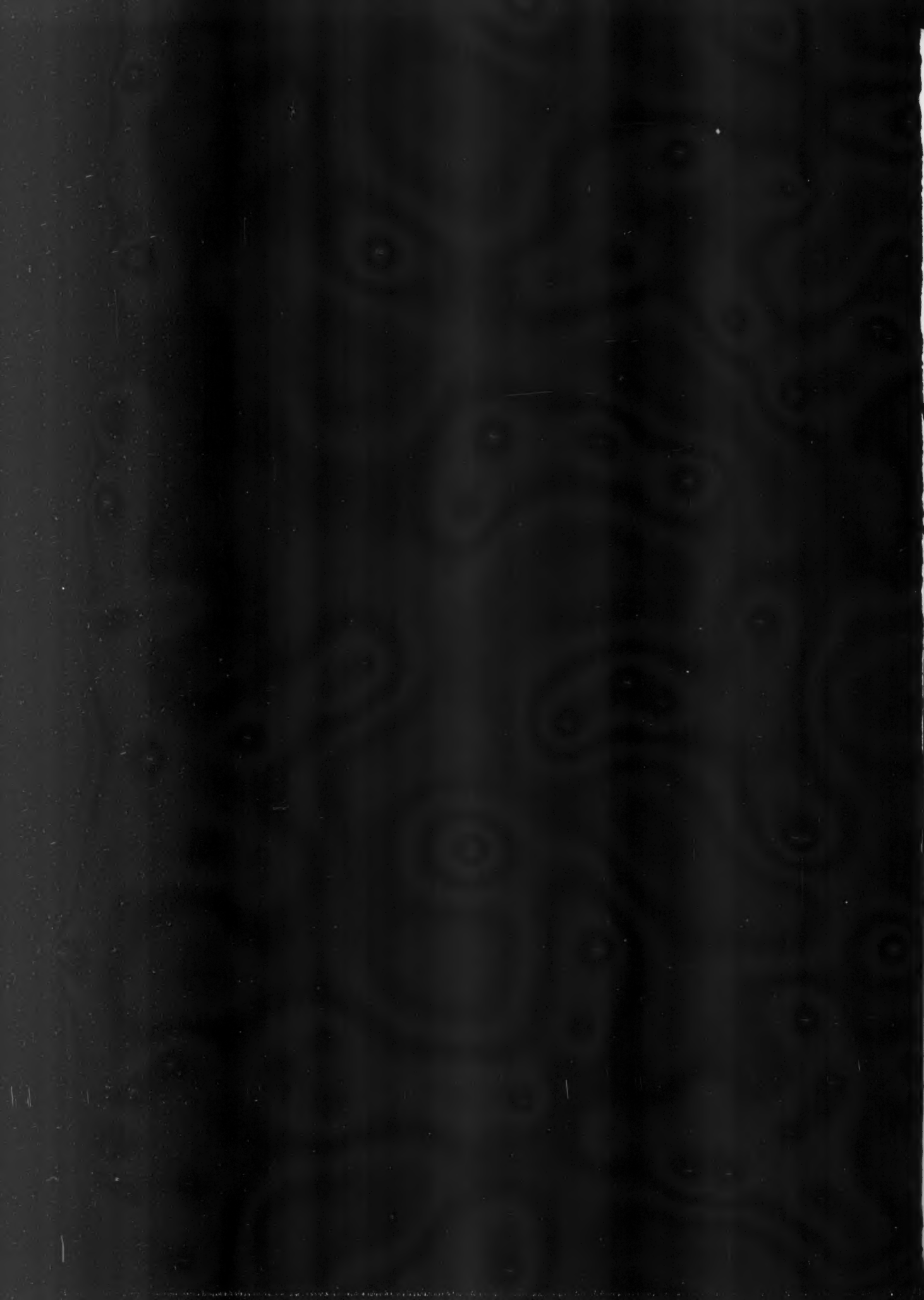
Oil Orange — This oil has staged the most spectacular advance seen in the essential oil market in many years. While the position is basically strong as indicated last month, it has been greatly aggravated by speculation, and otherwise would not have advanced so sharply. Italian oil is held at $5.10 @ $6.00 per pound as to seller and his opinion of the market future. West Indian is quoted at $4.90 @ $5.00 per pound; Spanish at $4.75 @ $4.90; Bitter at $4.85 @ $5.00; American cold pressed at $5.10 nominal; and American distilled at $3.55. The future of the market is problematical. While speculators claim that $7.00 will be reached, this cannot be accomplished if the movement into consumption is not heavy. However, this is the heaviest consuming period of the year.

Oil Patchouli — While no further reductions have been made in good quality oil, the position is pointing downward. Patchouli leaves are now priced at 15c per pound in primary markets, compared with 21c some time ago. The normal price of leaves is about 6c per pound.

Oil Peppermint — Position has become easier and prices are at $3.15 @ $3.30 per pound for natural oil. This is close to the bottom of the price range for the current year. Distilled oil is lower at $3.40 @ $3.45. The position in the country is becoming easier due to the large stocks of oil on hand and the proximity of the new crop in late August or early September. Continued easiness is generally anticipated.

Oil Petit Grain — South American oil is in a firmer position and prices are higher

		Current Market		1928 High	1928 Low	1927 Aver.	1914 July
Birch, Sweet, Northern, 25 lb. tins	lb.	3.75	4.00	4.00	3.75	8.00	4.25
Southern, 25 lb. tins	lb.	.....	1.95	1.95	1.95	3.75	.....
Birch Tar, rect, 5 lb bot	lb.	.50	.55	.55	.50	.56	.55
Crude, 50 lb tins	lb.	.12	.13	.13	.12	.13	.10
Bois de Rose, tins							
Brazillian	lb.	1.80	1.90	2.00	1.80	.....	.....
Cayenne, tins	lb.	2.40	2.45	2.45	2.05	2.23	4.00
Cade, 25 lb cans	lb.	.25	.27	.27	.25	.26½	.16
Cajuput, native, 50 lb tins	lb.	.70	.75	.75	.70	.75	.57½
Calamus, 5 lb bot	lb.	3.40	3.50	3.50	3.40	3.77	2.50
Camphor Sassa, 1000 lb drs	lb.	.14½	.15½	.15½	.14½	.15	.15
Wh te, 400 lb drs	lb.	.12	.12½	.12½	.12	.12	.12
Cans, 50 lbs	lb.	.14	.14½	.15	.14	.13	.13
Cananga							
Cananga, Native, 25 lb tins	lb.	3.00	3.25	3.50	3.00	4.75	2.80
Rectified, 25 lb tins	lb.	3.50	4.00	4.00	3.50	5.50	4.40
Caraway, USP	lb.	1.80	1.85	1.85	1.65	1.71	1.90
Cardamon, N F, 1 lb bot	lb.	25.00	38.00	38.00	25.00	26.59	28.00
Cascarilla, USP, 1 lb bot	lb	50.00	64.00	64.00	50.00	50.00	18.00
Cassia, 80-85%, 400 lb drs	lb.	.....	Nom.	1.45	1.30	1.67	1.10
Redist, USP, 50 lb cans	lb	2.30	2.75	2.75	1.70	1.96	1.30
Cedar Leaf, 50 lb tins	lb.	1.10	1.25	1.25	.90	1.05	.60
Cedar Wood, light, 1000 lb drs	lb.	.27	.29	29	.24	.32	.14
Celery, 1 lb bot	lb.	7.25	7.50	7.50	7.25	8.67	10.50
Chaulmoogra, 80 lb cases	lb.	.....	1.20	1.20	1.20	1.03½	.....
Cinnamon Ceylon, 1 lb bot	lb.	9.75	13.00	13.00	9.75	10.17	6.50
Leaf, 5 lb bot	lb.	1.60	1.75	1.75	1.60	1.60	.....
Citronella							
Citronella Ceylon 1000 lb drs	lb.	.43	.45	.45	.33	.34	.48
50 lb tins	lb.	.45	.47	.47	.35	.38	.49
Java, 400 lb drs	lb.	.41	.43	.43	.40	.45	1.30
50 lb tins	lb.	.43	.45	.46	.43	.48	1.35
Cloves, USP, 50 lb cans	lb.	1.35	1.40	1.40	1.25	1.45	1.00
6 lb bot	lb.	1.45	1.55	1.55	1.35	1.52	1.05
Copaiba	lb.	.65	.70	.80	.65	.87	1.00
Coriander, USP, 10 lb bots	lb.	11.50	12.00	12.00	10.50	6.39	5.50
Croton, USP, 25 lb tins	lb.	.90	.95	.95	.90	.90	.90
Cubebs, USP, 5 lb bot	lb.	3.25	3.45	3.45	3.25	4.12½	2.90
Cumin, 1 lb bot	lb.	.....	3.75	3.75	3.75	7.00	4.25
Dill, 25 lb cans	lb.	3.75	3.85	4.25	3.75	4.00	4.50
Erigeron, 20 lb tins	lb.	2.40	2.50	2.50	2.40	3.42	1.30
Eucalyptus							
Eucalyptus Austl USP, 56 lb cans, cases	lb.	.59	.60	.60	.59	.57	.45
500 lb drs	lb.	.58	.59	.59	.58	.54½	.43
Fennel, USP, 25 lb tins	lb.	.80	.85	.85	.80	.80	1.90
Geranium African, 25 lb tins	lb.	3.60	3.65	3.65	3.00	2.93	4.75
Bourbon, 28 lb tins	lb.	3.90	4.10	4.10	3.00	2.92	3.65
Turkish, 28 lb tins	lb.	3.00	3.05	3.05	2.45	2.67	3.50
Ginger, 1 lb bot	lb.	6.25	6.75	6.75	4.80	5.50	4.25
Gingergrass, 28 lb tins	lb.	2.50	2.70	2.70	2.50	2.50	1.75
Hemlock, 25 lb tins	lb.	1.00	1.10	1.10	1.00	1.04½	.50
Juniper Berries, USP, 25 lb tins	lb.	2.40	3.75	3.75	2.40	2.59	.85
Wood, 50 lb tins	lb.	.50	.60	.60	.50	.50	.23
Lavender							
Lavender, USP, 28 lb tins	lb.	3.40	3.85	3.85	3.00	3.75	3.75
Spike Spanish, 50 lb cans	lb.	.95	1.05	1.05	.95	1.10	.90
Lemon Ital, 25 lb cans	lb.	2.80	3.10	3.10	2.30	2.33	2.10
Califonia 35 lb cbys	lb.	2.65	2.70	2.70	1.85	.....	.....
Lemongrass, native, 50 lb cans	lb.	.90	.95	.95	.90	.92	1.05
Limes, expressed, 25 lb tins	lb.	9.25	9.50	9.50	9.25	9.37	3.25
Distilled, 25 lb tins	lb.	6.00	6.25	6.75	6.00	6.79	.75
Linaloe Mex, 70 lb cases	lb	2.40	2.45	2.45	1.90	2.04½	3.75
Mace, distilled, 50 lb tins	lb.	1.65	1.70	1.85	1.60	1.77½	.70
Mandarin, 25 lb cases	lb.	8.75	10.00	10.00	7.50	8.60	10.00
Mirbane, ref Aromatic Chemicals							
Mustard							
Mustard, USP, 1 lb bots	lb.	9.50	10.00	10.00	9.50	10.00	3.50
Artif, USP, 5 lb bot	lb.	1.70	1.80	2.00	1.70	1.98	1.25
Neroli Bigarade, ¼ & ½ & 1 lb bot	lb	75.00	140.00	140.00	75.00	75.00	40.00
Petale, 1 lb bot	lb.	160.00	170.00	170.00	160.00	119.17	51.00
Artificial, 1 lb bot	lb.	5.00	15.00	15.00	5.00	7.50	.....
Nutmeg, USP, 50 lb tins	lb	1.65	1.70	1.70	1.60	1.70	.70
Orange							
Orange bitter, 25 lb tins	lb.	4.85	5.00	5.00	2.70	2.72½	4.35
Sweet W Ind., 25 lb tins	lb.	4.90	5.00	5.00	2.60	2.61	2.05
Italian, 25 lb cop	lb.	5.10	6.00	6.00	2.80	2.72	2.15
American, Cold pressed 25 lb. tins	lb.	5.10	Nom.	5.10	3.50	3.03	.....
Distilled, 25 lb tins	lb.	.....	3.55	3.55	2.20	2.15	.....
Spanish, 25 lb tins	lb.	4.75	4.90	4.90	3.00	2.94	.....
Oil Orris, concrete	lb.	2.50	3.25	4.90	2.50	3.25	.....
Origanum 50 lb cans tech	lb.	.28	.30	.30	.28	.28	.17
Parsley, 1 lb bot	lb.	6.50	6.75	6.75	6.50	6.50	8.00
Patchouli, 5 lb bot	lb.	8.50	9.25	13.00	8.50	9.04	4.00
Pennyroyal, dom, 25 lb tins	lb.	1.75	1.85	1.90	1.75	1.99	1.75
Imported, 25 lb tins	lb.	1.40	1.50	1.55	1.40	1.73	1.05
Peppermint, nat, 60 lb cases	lb.	3.15	3.30	3.40	3.15	3.44	3.80
Redis, USP, 60 lb cs	lb.	3.40	3.45	3.60	3.40	3.96	4.60
Petit Grain S A., 25 lb tins	lb.	1.65	1.70	1.70	1.50	1.64	3.25
French, 1 lb bot	lb.	6.25	6.50	6.50	6.25	6.50	4.75
Italian, 25 lb tins	lb.	2.20	2.30	2.30	2.20	2.20	3.85
Pimento, 25 lb tins	lb.	2.55	3.00	3.25	2.55	3.67½	1.70
Pineedle Siberian, cans	lb.	.70	.75	.85	.70	.97	.36
Pinus, Sylvestris, 25 lb tins	lb.	1.90	2.00	2.00	1.90	1.69	1.85
Pumilio, USP, 25 lb tins	lb.	2.85	2.95	2.95	2.85	2.78	2.50
Rose Fr, 8, 16, & 32 oz pkgs	lb.	12.00	15.00	15.00	12.00	9.00	12.50
Bulg, 8, 10 & 32 oz pkgs	lb.	10.25	13.00	13.00	10.25	10.25	19.00



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Essential Oils

Standard Purchasing Power of the Dollar: July 1914 $1.00 - Jan. 1927 68.7c - July 1927 71.7c - April 1928 67.8c

at $1.65 @ $1.70 per pound. French and Italian oils are steady but unchanged.

Oil Pimento — This oil remains at the reduction of last month caused by the low priced imported oil that is coming into the market. The price is probably as low as it will go in the present situation.

Oil Pineneedle — The position continues easy due to more liberal supplies coming through from Siberia. One dealer formerly quoting 80c per pound is now naming 75c. Oil is available in other directions at 70c per pound.

Oil Sassafras — More liberal supplies offered in primary markets have brought easiness in the price position of this oil. Dealers now offer goods at 78c @ 80c per pound as to quantity.

Oil Vetivert — The position has not changed. However, there is speculation as to the effect of the higher market for Bourbon geranium oil on the Bourbon vetivert oil. Some think that a course of holding back oil to advance prices might be followed as was done in geranium oil.

Oil Spearmint — As with peppermint oil, this oil has softened in price and is now offered on spot at $4.10 @ $4.20 per pound. The easiness of peppermint oil together with the fact that the spearmint crop is due within a few months, has led to the decline.

Oil Wormseed — Easiness continues in this market due to plentiful supplies and steadily lessening consumption.

Oil Wormwood — Supplies are still very small and held at high prices. No relief is in sight at this time.

Crude Drugs

The market showed no exceptional activity during the month. Interest in ergot centered around the proceedings in Washington and the market was dull. Ipecac continues to decline as supplies become more plentiful. Senega root is still following its upward course. Colocynth pulp is lower on freer supplies. Temeric has advanced further as was predicted. Buchu leaves are lower.

Aconite Root—The market has gained in strength and some holders are quoting higher prices in anticipation of a general advance based upon present prices in the primary markets. Offerings are held at 22c @ 27c per pound with the low priced sellers quickly unloading.

Agar Agar — Higher quotations from Japan have advanced the spot market for No. 1 which is now quoted firmly at $1.05 @ $1.10 per pound. Little or

		Current Market	1928 High	1928 Low	1927 Aver.	1914 July
Rosemary, USP, 27½ lb tins	lb.	.47½	.52½	.47½	.47½	.65
1000 lb drums	lb.	.42½	.45	.45	.42½	.62½
Tech, 25½ lb tins	lb.	.....	.34	.34	.37	.57
Rue, 1 lb bot	lb.	3.15	3.25	3.25	3.15	3.80	3.85
Sandalwood						
Sandalwood, E Ind, USP, 100 lb case	lb.	7.05	7.15	7.15	7.05	7.10	4.75
W Indian (Amayris), 25 lb tins	lb.	2.30	2.35	2.35	2.30	2.10	1.15
Sassafras, USP, 50 lb cans	lb.	.78	.80	.85	.75	.98	.55
Artificial, 1000 lb drs, 60 lb cans	lb.	.26	.28	.28	.26	.26	.24
Safrol, cans	lb.	.28	.29	.29	.28	.27½	.30
Savin, 50 lb tins	lb.	1.70	1.90	1.90	1.70	1.84	1.80
Spearmint						
Spearmint, USP, 50 lb tins	lb.	4.10	4.20	4.45	4.10	3.89	3.40
Spruce, 50 lb tins	lb.	1.00	1.10	1.10	1.00	1.07	.45
Tansy, American, 25 lb tins	lb.	4.25	4.50	4.50	4.25	4.85	4.25
Tar, 50 gal bbls	lb.	.25	.30	.30	.25	.25	.....
USP, 50 gal bbls	lb.	.75	1.50	1.50	.75	.75	.....
Thyme, red, NF, 25 lb tins	lb.	.80	.90	.90	.80	.85	1.15
White, NF, 25 lb tins	lb.	.85	.90	.90	.85	.97	1.25
Tech, 110 lb drums	lb.	.60	.70	.70	.60	.65	.....
Turpentine, USP, rect cbys	lb.	.27	.30	.30	.27	.30	.45
Vetivert Bourbon, 10 bot	lb.	6.00	6.75	6.75	5.85	9.90	2.00
Indian, 1 lb bot	lb.	25.00	38.00	38.00	25.00	28.33	12.00
Java, 1 lb bot	lb.	15.00	16.00	16.00	15.00	18.83	.....
Wine, heavy, 1 lb bot	lb.	1.65	1.75	1.75	1.65	1.75	4.00
Wintergreen						
Gaultheria, true, 25 lb tin	lb.	8.00	10.00	10.00	8.00	8.00	4.25
Southern, 25 lb tins	lb.	3.75	4.00	4.00	3.75	3.75	.....
Synthetic see Methyl Salicylate							
Wormwood, dom, 25 lb tins	lb.	.....	14.00	14.00	14.00	7.84	3.75
Wormseed, Balt, 25 lb tins	lb	3.15	3.35	3.45	2.85	3.36	1.40
Ylang Ylang Bourbon, 10 lb tins No 1	lb	8.50	10.50	10.50	8.50	12.00	.....
10 lb tins No. 2	lb.	6.75	7.00	7.00	6.75	7.00	.....
Manila, 1 lb bot	lb.	30.00	40.00	32.0"	30.00	32.25	28.00
Oleoresins						
Aspidum, USP, bot and tins	lb.	.....	2.10	2.10	2.10	2.11	1.90
Capsicum, USP, bot and tins	lb.	3.50	4.25	4.25	3.50	3.28	2.75
Cubeb, USP, bot and tins	lb	3.00	3.25	3.25	3.00	3.25	2.90
Ginger bot and tins	lb.	2.85	3.35	3.35	2.25	2.25	4.25
Malefern see Aspidum							
Orris, bot & tins	lb.	15.00	18.00	18.00	15.00	15.00	.....
Pepper, black, USP, bot & tin	lb.	.....	.....	.....	.....	4.50	.....
Vanilla, bot & tins	lb.	8.00	8.75	8.75	8.00	9.00	.....
Perfumer's Sundries						
Almond Meal, 25 lb cans	lb.	.20	.21	.21	.20	.25	.22
Amber liquid, 400 lb drs	lb.	2.20	2.30	2.30	2.20	2.20	.....
Ambergris, Black, boxes	oz.	14.00	15.00	15.00	14.00	17.50	26.00
Gray boxes	oz.	32.00	36.00	36.00	32.00	32.00	28.00
Balsams						
Balsam Copaiba Para, 80 lb cases	lb	.46	.48	.49	.47	.43½	.44
South American, USP, 80 lb cases	lb	.48	.50	.52	.49	.55	.41
Peru, 120 lb cases	lb.	1.65	1.70	1.70	1.65	1.71½	1.50
Tolu, 90 lb cases	lb.	.95	1.00	1.20	.95	1.15½	.50
Benzoin Gum, Siam, boxes	lb.	1.20	1.30	1.30	1.20	1.12½	1.50
Castoreum, 1 lb bot	lb.	9.50	10.00	10.00	9.50	12.00	11.00
Chalk, Precip, 1 gt 175 bbls	lb	.04½	.05	.05	.04½	.04½	.....
Cherry Laurel Water, 24 ltr cby	lb	4.10	4.60	5.60	4.10	6.07	6.60
Civet, Abyssin, horns	oz	2.10	3.00	3.00	2.10	2.10	1.50
Labdanum, 5 lb bot	lb.	5.50	6.00	6.00	5.50	7.50	.....
Lanolin, hydrous, 350 lb bbls	lb.	.15	.16	.16	.15	.19	.....
Anhydrous, 350 lb bbls	lb.	.16	.17	.17	.16	.22	.....
Musk Pods Cabardine, tins	lb.	.....	.....	....	.....	.....	8.00
Musk						
Tonquin, tins	oz	24.00	26.00	26.00	24.00	24.00	13.00
Grains Cabardine, tins	oz	.....	.....	.....	.....	.....	12.00
Tonquin tins	oz.	28.00	34.00	34.00	28.00	36.00	16.00
Synthetic See Aromatic Chemical							
Orris Rt Flor powd bbls	lb	.12	.13	.13	.12	.12	.19
Verona powd, bbls	lb	.10	.11	.11	.10	.10	.14
Petrolatum						
Petrolatum, snow white, 350 lb bbls	lb	.12½	.13½	.13½	.12½	.12½	.10
Light Amber, 350 lb bbls	lb	.12½	.13	.13	.12½	.04½	.03
Rice Starch 140 lb bags	lb.	.09	.10	.10	.09	.09	.....
Rose Water, 24 ltr cbys	cby.	5.00	5.50	5.50	5.00	8.55	5.02
Sandalwood, pwd bags	lb.	.22½	.40	.40	.22½	.61½	.75
Saponin, 5 lb tins	lb.	1.15	1.30	1.30	1.15	1.15	.....
Talc, Italian, 220 lb bags	ton.	60.00	80.00	80.00	60.00	60.00	35.00
French, 220 lb bags	ton	40.00	45.00	45.00	40.00	40.00	15.00

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Standard Purchasing Power of the Dollar: July 1914 $1.00 - Jan. 1927 68.7c - July 1927 71.7c - April 1928 67.8c

nothing is known of the reasons behind this advance, but is merely thought to be a movement on the part of exporters in Japan to boost the market.

Almonds Bitter — In better supply and lower in price at 75c per pound on spot. Demand is normal and a steady market is anticipated at the lower figure.

Alkanet Root — Easier conditions are prevalent in this market and the price range has narrowed downward to 10c @ 11c per pound as to quantity and seller. Supplies are quite liberal considering the demand.

Arnica Flowers — The market has increased in firmness at unchanged prices. Spot stocks are reported to be exceedingly small and firmly held. Improved buying interest has added to the strong position locally.

Asafoetida — Slightly lower prices are named by holders of spot stocks due to increased stocks and somewhat lessened demand. The present market is not considered weak, however, and steadiness at close to present levels is generally anticipated.

Bayberry Bark — Market is quiet with buying of small volume and prices fairly steady in all directions.

Belladonna Leaves — The market showed no appreciable strength. In fact stocks were inclined to become burdensome to holders who were likely to shade existing quotations for a real order. Any stimulation of demand will immediately produce firmness in most directions.

Benzoin Gum — The Sumatra goods are more freely offered and spot quotations have lowered to 62c @ 65c per pound. Demand has not been so good and stocks on spot are becoming burdensome to some holders.

Blood Root — While demand has not been exceedingly heavy, stocks has decreased and the higher prices from the primary markets have caused spot holders to advance quotations to 33c @ 35c per pound as to quantity.

Blueflag Root — In quiet routine demand with sellers anticipating an increased demand shortly and therefore not anxious to shade prices.

Buchu Leaves — An easier condition prevails in short leaves which have been lowered by some sellers to a basis of 46c @ 48c per pound as to quantity. In the face of the quiet market for crude drugs generally, it appears that holders of stocks are attempting to unload some of their holdings are trying to find the level at which buyers will be attracted.

	Current Market	1928 High	1928 Low	1927 Aver.	1914 July
Crude Drugs and Spices					
Aconite Leaves, bales lb.	.11	.12	.12	.09	.09	.07
Root, USP, bags lb.	.22	.27	.27	.22	.24	.11
Agar Agar, No. 1, 200 lb bale lb.	1.05	1.10	1.10	.96	1.07	.45
No. 2, 200 lb bales lb.	.78	.90	.90	.78	.89	.40
No. 3, 200 lb bales lb.	.59	.....	.59	.59	.70	.37
Agaric White, cases lb.	.60	.75	.75	.60	.60	.11
Granulated, boxes lb.	.80	.95	.95	.80	.80	.....
Almonds Bitter, boxes, lb.	.75	.....	.80	.75	.79	.....
Sweet boxes lb.	.65	.70	.70	.65	.65	.....
Meal barrels, boxes lb.	.15	.30	.30	.15	.15	.07
Aletris Root, bags lb	.39	.40	.41	.39	.42	.26
Alkanet Root, bags lb	.10	.11	.12	.10	.10	.06
Aloes						
Aloes, Barbados, 120 lb bbl lb.	1.00	1.10	1.10	1.00	1.00	1.15
Powdered lb.	1.10	1.20	1.20	1.10	1.10	.....
Cape, 400 lb cases lb.	.09½	.10	.10	.09½	.10	.08
Curacao, 100 lb cases lb.	.13	.15	.15	.12	.11½	.10
Gourds lb.	.35	.45	.45	.35	.35	.09½
Socotrine, Whole, 300 lb cs lb.	.40	.....	.40	.40	.35	.22
Althea Root, bags lb.	.20	.22	.22	.20	.20	.16
Cut cases lb.	.36	.40	.40	.36	.42	.22
Grd & powd, bags lb.	.30	.32	.32	.30	.33	.....
Ammoniac Gum Tears, cases lb.	.50	.....	.50	.50	.20	.17½
Angelica Root, bags lb	.20	.22	.22	.18	.21½	.15
Imported lb	.14½	.....	.14½	.14½	.14½	.18
Angostura Bark, bags lb.	.18	.....	.18	.18	.18	.14½
Anise Levant, bags lb.	.12½	.13	.13	.12½	.12½	1916
Star case, lb.	.16	.17	.17	.14	.16½	.19½
Spanish, bags lb.	.15	.15½	.15½	.13	.15	.10
Arabic Gum						
Arabic Gum, White, No. 1, 100 lb bags lb.	.22	.27½	.27½	.22	.22	.25
Seconds, 200 lb bags lb	.16	.21	.21	.16	.16	.19
Sorts, Amber, 220 lb bags lb.	.10½	.10½	.10½	.10½	.10½	.10½
Powd. USP, 300 lb bbls lb.	.19	.21	.21	.19	.19	...
Areca Nuts, 100 lb bbls lb.	.12	.12½	.12½	.12	.13	.05
Powd, 100 lb bbls lb.	.17	.21	.21	.17	.17	.....
Arnica Flowers, bales lb.	1.48	1.50	1.50	1.48	....	.12
Root, bags lb.	.....	.45	.45	.37	.37	.40
Arrowroot American powd bbls lb	.10	.10½	.10½	.10	.10	.....
St. Vincent powd bbls lb.	.10	.10½	.10½	.10	.10½	.08
Asafoetida 250 lb cases lb.	.27	.28	.31	.27	.30½	.25
Powd 50 lb boxes lb.	.50	.54	.68	.50	.60	.....
Tears Fancy lb.	.60	.70	.70	.60	.61½	.19
Balm Gilead Buds bags lb.	.38	...	.38	.38	.37	.24
Balmony Herbs bales lb	.18	.....	.18	.18	.13	.06½
Barberry Bark bales lb.	.12	.12½	.12½	.12	.10½	1918
Root bags lb.	.29	.32	.32	.29	.24	.06½
Bayberry Bark bales lb.	.....	.18	.18	.12	.09½	.05
Wax bbls lb.	.29	.32	.32	.29	.29	.27
Belladonna						
Belladonna Leaves bales lb.	.19	.23	.23	.19	.20	.50
Root bags lb.	.20	.21	.21	.20	.20	.10
Bees Wax White cases lb.	.55	.60	.60	.55	.58	.47½
Yellow refined cases lb.	.41	.42	.42	.41	.44	.40
Benzoin Gum Siam boxes lb	Nom.	.....	.....	.....	1.25	1.50
Powdered lb.	1.50	.....	1.50	1.50	1.47	.....
Sumatra 80 lb boxes lb.	.62	.63	.68	.62	.59	.34
Berberis Aquafolium Root bags lb.	.13	.....	.13	.13	.11½	.11
Beth Root bags lb.	.18	.....	.18	.18	.18	.08½
Bitter Root 100 lb bags lb.	.19	.20	.20	.19	.21	.24
Blackhaw Bark of Root bales lb.	.32	.34	.34	.30	.27	.17
Bark of Tree bales lb.	.18	.18½	.18½	.18	.15½	.04½
Black Indian Hemp Root 100 lb bags lb.	.20	.....	.20	.20	.20	.20
Blood Root bags lb.	.33	.35	.35	.24	.15	.09
Blueflag Root bags lb.	.18	.23	.27	.18	.20	.13
Boldo Leaves bales lb.	.15	.17	.17	.15	.15	.12½
Boneset Herb bales lb.	.09	.10	.10	.07½	.07½	.07
Leaves bales lb.	.11	.12	.12	.11	.09½	.....
Borage Flowers bales lb.	.16	.17	.17	.16	.17	.17½
Broomtop Herb Cut bales lb.	.10	.11	.11	.10	.10	.07½
Bryonia Root bags lb.	.10½	.12	.12	.10½	.10¼	.12
Buchu Leaves						
Buchu Leaves Short 250 lb bbls lb.	.46	.48	.55	.44	.48	1.40
Long bales lb.	.75	.80	.80	.75	.75	1.50
Buckbean Leaves bales lb.	.13	.15	.15	.13	.12½	.07½
Buckthorn Bark bags lb.	.05	.05½	.05½	.05	.05	.20
Berries bags lb.	.45	.50	.50	.45	.52½	.18
Burdock Root bags lb.	.12	.14	.14	.12	.11½	07
Seed bags lb.	.65	.....	.....	.65	.58½	.08
Burgundy Pitch, 110 stand gross for net lb.	.08	.09	.09	.08	.08	.04
Imported lb.	.12	.13	.13	.12	.11½	.06½
Calabar Beans bags lb.	.25	.27	.27	.25	.27½	.25
Calamus Root, blchd cases lb.	.....	.40	.40	.37	.38½	.23
Unbleached, bags lb	.06½	.07	.07	.06½	.06½	.09
Calendula Petals, imp bales lb.	.85	.90	1.10	.85	.82	.40
Calisaya Bark, bales lb.	.23	...	.....	.23	.25	.17
Powdered, bbls lb.	.28	.32	.32	.18	.28	.....

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Insect Flowers
Juniper Berries
Lavender Flowers
Licorice Root Cuttings
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Drugs and Spices

Standard Purchasing Power of the Dollar: July 1914 $1.00 - Jan. 1927 68.7c - July 1927 71.7c - April 1928 67.8c

Buckthorn Bark — Exceedingly quiet with holders of stocks holding firmly in anticipation of a resumption of buying interest.

Calendula Petals — Prices were easy from most holders. Prices have steadied at the lower levels, however, and dealers look for better burning interest from now on.

Chamomile Flowers — Plentiful stocks in the hands of spot holders caused the Hungarian to remain easy in price position. Quotations were unchanged, but some dealers were inclined to be quite free in their transactions in an effort to move some of their goods into consumers' hands. The Roman flowers were more firmly held and there was no change in quotations.

Cubeb Berries — The same condition prevails in this product as prevails in most of the botanicals. Stocks are large in the face of the quiet buying interest and some dealers feel that they have over estimated some consumption with the result that they are becoming anxious as to prices that will be obtained for their goods.

Cascara Sagrada — This market is held steady in the face of the quiet conditions prevailing in crude drugs. Demand for this item has been quite in line with the expectations of dealers and their stocks are no more than comfortable in size.

Cinchona Bark — The position of this product has shown no change. The Government is in possession of such goods as are available due to the recent seizure under the Wilson Tariff Act, and most likely these supplies are available to American quinine producers.

Colocynth Pulp — More material has been received of satisfactory quality and some dealers are offering goods at slightly lower prices of 95c @ $1.00 per pound. This material will probably find a ready market due to the inability of importers here to get shippers to send good quality material. The conditions under which this material is collected in primary markets works very much against good material being received.

Colchicum Seed — Sharply higher prices are quoted by dealers on this product. The prices also spread over a rather wide range of 30c @ 40c per pound. Stocks on spot are small and very strongly held. Demand is moderate, and unless shipments are shortly received, prices will advance further.

Coriander Seed — This market remains very firm on all grades. Bombay seed is still unobtainable here, and shipments of Morocco seed afloat are priced in line with existing spot quotations. The new crop material has started to come

		Current Market		1928 High	1928 Low	1927 Aver.	1914 July
Canary Seed, South America, bags	lb.	.05	.05½	.05½	.04½	.04½	.06
Dutch, bags	lb.	.05¼	.06¼	.06¼	.05¼	.05¼	.09
Candelilla Wax, bags	lb.	.27	.28	.28	.27	.33	.22
Cannella Alba Bark, bales	lb.	.30	.32	.32	.30	.32	.08
Cannabis True, Imp, bags	lb.	.....	.....	.....	.....	.....	1.55
American (no assay), bale	lb.	.23	.....	.25	.23	.25	.26
USP	lb.	.20	.26	.30	.20	.2›	1918
Cantharides, Chinese, cases	lb.	.70	.72	.72	.70	.70½	.63
Powdered, bags	lb.	.80	.88	.88	.80	.90	1.60
Russian, cases	lb.	.60	.65	.65	.60	.60	2.00
Powdered, boxes	lb.	.78	.80	.80	.78	.73¼	2.25
Caraway Seed, African, bags	lb	.05	.06	.12	.05	.12	1918
Dutch 11 lb bags	lb.	.10	.11	.12	.09½	.11	.08
Cardamon Bleached, cases	lb.	1.75	2.00	2.00	1.50	1.60	1.30
Decorticated, cases	lb.	1.50	1.60	1.60	1.35	1.55½	1.15
Carnauba Wax No. 1, bags	lb.	.57	...	.57	.57	.60	.45
No. 2 bags	lb.	.55	.....	.55	.55	.54	.42½
No. 2 N Country, bags	lb.	.36	.....	.36	.36	.41½	.32
No. 3 N Country, bags	lb.	.34	...	.34	.34	.36	.29
No. 3 Chalky, bags	lb.	.39	.40	.40	.39	.39	.33
Cascara Amarga, 150 lb bbls	lb.	.90	...	.90	.90	.90	.....
So called bales	lb.	.60	.85	.85	.60	.62	.82
Cascara							
Cascara Sagrada, bales, 1923 bark	lb.	.20	.....	.20	.20	.20	.....
1924 bark	lb	.18	.....	.18	.18	.18	.....
1925 bark	lb.	.16	...	.16	.16	.16	.....
1926 bark	lb	.15	.16	.16	.15	.15	.....
1927 bark	lb.	.14	.15	.15	.14	.90	.....
Cascarilla Bark, quills, bales	lb.	.90	1.00	1.00	.90	.....	.22
Siftings, bbls	lb.	.65	.....	.65	.65	.65	.11
Cassia Batavia No. 1 bbls	lb.	.15	.16	.16	.13½	.12½	.18
Shortstick, bales	lb.	.12½	.13	.13	.11½	.11½	.11
Batavia No. 3, bales	lb.	.10½	.11	.11	.09½	.09½	1918
China Select Rolls, cases	lb.	.09	.09½	.13½	.09	.12	.07½
Broken, bales	lb.	.07	.08	.09½	.07	.07½	.05½
Saigon, thin	lb.	.22	.23	.23	.22	.18½	.28½
Buds, cases	lb.	.18½	.19	.19	.18½	.17½	.11½
Fistula, baskets	lb.	.12	.14	.24	.12	.16½	.06½
Catnip, Herb, bales	lb.	.18	.23	.23	.18	.18	.08½
Celery Seed, bales	lb	.20½	.21½	.20½	.19	.19½	.17½
Ceresin Wax, White, bags	lb.	.15	.20	.20	.15	.15	.14
Yellow, 200 lb bags	lb.	.11	.14	.14	.11	.11	.12
Imp., 100 lb bags	lb.	.25	.38	.38	.25	.25	.....
Chamomile							
Chamomile Flowers Roman, bale	lb.	.21	.33	.33	.21	.21½	.15
Hungarian, cases	lb.	.17	.18	.19½	.17	.26½	.35
Charcoal Willow, powd, bbls	lb.	.06	.06½	.06½	.06	.06	.....
Wood, powd, bbls	lb.	.04	.05	.05	.04	.04	.04
Chestnut Bark	lb.	.07	.08	.08	.07	.....	.....
Leaves bales	lb.	.06	.06½	.06½	.06	.06	.05
Chicle Gum, lb bbls	lb.	.58	.75	.75	.58	.58	.60
Chiretta, bales	lb.	.28	.30	.30	.25	.25	.14
Cinchona							
Cinchona Bark, Red Quill, bales 10 inch	lb.	.65	.....	.65	.65	.68½	.....
20 inch	lb.	.68	.....	.70	.68	.70	.....
40 inch	lb.	.85	.....	.85	.85	.85	.....
Chips, 150 lb bags	lb.	.23	.27	.27	.23	.23	.12
Cinnamon, Ceylon No. 1, bales	lb.	.62	...	.62	.62	.59	.30
No. 2 bales bend	lb.	.58	.59	.61	.57	.58	.29
No. 3 bales	lb.	Nom.	.....	Nom.	Nom.	.44½	.28
Clover Tops, Red, bags	lb.	.10	.11½	.11½	.10	.11½	.08
Cloves, Zanzibar, 135 lb bbl	lb.	.19½	.20	.19	.18	.20	.15½
Cochineal, Black	lb.	.69	...	.69	.69	.69	.44
Silver	lb.	.85	.....	.85	.85	.84½	.42
Cohosh Root, Black, bags	lb.	.09	.....	.09	.09	.07½	.04
Blue, bags	lb.	.09	.....	.09	.09	.08	.05
Colchicum Root, bags	lb.	.06	.07	.07	.06	.06½	.11
Seed, bags	lb.	.30	.40	.40	.25	.23	.20
Columbo Root							
Columbo Root, bags	lb.	.10	.11	.11	.05	.4½	.06
Colocynth Pulp, bales	lb.	.95	1.00	1.10	.85	.81	.23
Coltsfoot Leaves, bags	lb.	.10	.12	.12	.10	.10	.06
Comfrey Root, bags	lb.	.14	...	.14	.14	.10½	.08
Condurango Bark, bags	lb.	.14	.15	.15	.13	.13	.12½
Conium, Herb, bags	lb.	.11	.12	.12	.11	.11	.06
Seed, bags	lb.	.11	.12	.12	.10	10	.09
Copaiba Balsam Para, see Balsams							
Coriander Seed, Bombay, bags	lb.	Nom.	.....	Nom.	Nom.	.07½	.08
Morocco, bags	lb.	.12½	.13	.13	.09½	.05½	.4½
Bleached, bags	lb.	.18	.19	.19	.16	.12½	.05
Corn Silk, bales	lb.	.06	.....	.06	.06	.06	.08
Cotton Root Bark, bales	lb.	.13	.13½	.13½	.13	.12	.06½
Cowhage, 1 oz tins	lb.	1.00	.....	1.00	.95	.96½	.....
Cramp Bark, So called bales	lb.	.06	.07	.07	.06	.06½	.06½
True, bags	lb.	.48	.50	.55	.48	.49	1918
Cranesbill Root, bags	lb	.10	.....	.12	.10	.11	.07½
Cubeb Berries							
Cubeb Berries, XX bags	lb.	.48	.53	.53	.48	.48	.42
Powdered, boxes	lb.	.50	.55	.55	.50	.57½	.42
Culvers Root, bags	lb.	.20	.22	.22	.19	.18	.14
Cumin Seed, Malta, bags	lb.	.14	.14½	.15	.14	.12½	.10
Morocco, bags	lb.	.14	.14½	.15	.14	.12¼	1918
Cuttlefish, Bone Trieste, Straps	lb.	.13	.....	.13	.13	.13	.14½
French, boxes	lb.	.12½	.15	.15	.12½	.12½	.12½
Powdered, bbls	lb.	.09	.10	.10	.09	.09	.05
Broken, bales	lb.	.05	.....	.05	.05	.05½	.05
Damiana Leaves, bales	lb.	.20	.23	.30	.20	.30	.08
Dandelion Root, Imp, bags	lb	.16	.17	.17	.14	.14½	.10½

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through but speculation has been started on this material and no price easiness is in sight just now.

Cotton Root Bark — Conditions continued easy with dealers intimating shading of quotations of 12c @ 13c per pound for a large order.

Cramp Bark — The easy condition of the entire market for crude drugs was again reflected in a reduction in the price of true cramp bark which dealers now offer freely at 48c @ 50c per pound with shading indicated by some for round lots. Stocks were of rather large volume and demand was small.

Damiana Leaves — Although the new crop is coming through and the market should appear weak, holdover supplies are being marketed in quite a steady manner as regards price and dealers look for real display of weakness.

Dandelion Root — Holders are anxious to reduce stocks with the approach of warm weather which is none too good for this product. However, holders are attempting to unload holdings with as little disturbance to the price as possible and are quite successful in their operations.

Digitalis Leaves — The market is easy due to slight consuming demand as might be expected at this time of year. However, spot offerings are rather limited and dealers are having no difficulty in obtaining quoted prices for such demand as makes its appearnace.

Elm Bark — The market has held in a steady position despite the arrival of the new crop. The carry-over is reported to be small and sellers anticipate no trouble from a price position over the coming months.

Ephedra Vulgaris — While the general demand for this product is widening, the past month showed no indication of this fact. Buying was in small lots and of the jobbing type. However, the market was fairly steady in tone.

Ergot — The situation showed little change with all eyes turned on the proceedings in Washington. While consumers were anxious to obtain supplies they were still demanding them mostly of the regular suppliers and these importers were getting goods through as rapidly as possible. Quotations are firm with goods changing hands at $2.00 @ $2.50 per pound where these figures could be learned. The holder of large stocks of Spanish ergot still named prices well above the current market. The consensus of opinion was that with the new crop of Spanish ergot looming on the horizon, some heavy selling of existing stocks must be done to hold the market firm. The large quantity of

		Current Market	1928 High	1928 Low	1927 Aver.	1914 July
Deer Tongue Leaves, bales	lb.	.15	.18	.18	.15	.19	.07½
Digitalis Leaves, bales	lb.	.35	.40	.52	.30	.30	1918
Dill Seed, bags	lb.	.07	.07½	.07½	.07	.05½	.07½
Cleaned, bags	lb.	.08	.....	.08	.08	.08	.08
Dogwood Bark, Jamaica bags	lb.	.09½	.10½	.10½	.09½	.09½	.05
American bales	lb.	.06½	.....	.06½	.06½	.06½	.07½
Doggrass Root USP, cut bags	lb.	.12	.12½	.12½	.12	.13	.06½
Dragons Blood Mass, cases	lb.	.65	.70	.70	.65	.69	.25
Reeds, boxes	lb.	.95	.....	.95	.95	.95	.45
Echinacea Root, bags	lb.	.30	.33	.33	.30	.30	.22
Elcampane Root, bags	lb.	.08	.09	.09	.08	.08	.06½
Elder Flowers, bags	lb.	.19	.22	.22	.19	.15	.11
Elemi Gum, 85 lb cases	lb.	.26	.28	.28	.20	.20	.....
Elm Bark, bundles	lb.	.26	.27	.26	.24	.21½	.17
Grinding bags	lb.	.13½	.14	.14	.13½	.13½	.09
Powdered, bbls	lb.	.20	.22	.22	.20	.20½	.....
Ephedra Vulgaris, bales	lb.	.18	.20	.25	.18	...31½	.....
Ergot							
Ergot, 150-200 lb bags	lb.	2.00	2.50	2.50	1.45	1.22	.....
Eucalyptus Leaves, bales	lb.	.....	.10	.10	.07	.05	.04
Euphorbia Pilulifera, Herb, bags	lb.	.08	.08½	.08½	.08	.08	.08
Euphorbium Gum, cases	lb.	.14	.20	.20	.14	.14	.12
Powdered, boxes	lb.	.25	.....	.25	.25	.25	...
Fennel Seed, French, bags	lb.	.18	.19	.19	.17½	.11½	.06½
German, bags	lb.	.26½	.28	.32	.26½	.24½	.10
Fenugreek Seed, 200 lb bags	lb.	.05	.06	.06	.05½	.05½	.03
Fish Berries, 100-125 lb bag	lb.	.06	.07½	.07½	.06	.06	.03½
Flax Seed, Whole 182 lb bbls	lb.	14.00	14.75	14.75	14.00	14.10	10.00
Ground 180 lb bbls	lb.	.08	.08½	.08½	.08	.08	1918
Flea Seeds Black bags	lb.	.24	.27	.27	.16	.38	.....
Fringe Tree Bark or Root bags	lb.	.25	.27	.27	.23	.22	17½
Fumigating Pastilles Red Bulk lb. boxes		.30	.35	.35	.30	.30	.20
Galangal Root bags	lb.	.11	.13	.13	.11	.14	.08
Galbanum Gum, cans	lb.	1.15	1.25	1.25	1.00	1.59	.60
Gamboge Gum, 100 lb cases	lb.	1.30	1.35	1.35	1.20	1.09	.66
Powdered, cases	lb.	1.45	1.50	1.50	1.25	1.22½	.65
Gelsemium Root, bags	lb.	.09	.10	.10	.09	.09	.05
Gentian Root							
Gentian Root, bags	lb.	.09½	.11	.11	.09½	.08½	.06½
Ground bbls, boxes	lb.	.13	.14	.14	.13	.11½	.....
Powdered, bbls, boxes	lb.	.13	.....	.13	.13	.02½	.....
Ginger, African, bags	lb.	.13	.14	.14	.10½	.09½	.05
Jamaica Grinding, bags	lb.	.21	.22	.22	.17	.14½	.15
Cochin ABC & Lemon, bags	lb.	.19	.20	.20	.16	.14	.06½
Ginseng Root, cultivated ca	lb.	8.00	10.00	10.00	8.00	8.00	5.00
Wild Southern, cases	lb.	8.50	10 00	10 00	8.50	8.50	6.00
Fibers, cases	lb	3.75	4.00	4.00	3.75	3.75	.....
Golden Seal Root, bags	lb.	4.30	4.50	4.50	5.30	4.65	4.50
Powdered, boxes	lb.	4.75	4.80	5.25	4.75	5.26	5.15
Herb, barrels	lb.	1.25	1.30	1.30	1.25	1.25	.47
Grains of Paradise, bags	lb.	.40	.45	.50	.40	.40½	.15
Grindelia Robusta, Herb, bale	lb.	.09	.10	.10	.09	.09	.05
Guaiac Gum, 150 lb cases	lb.	.38	.40	.40	.38	.39	.27
Powdered, strained, 75 lb cs	lb.	.70	.75	.75	.70	.64½	1918
Guarana, tin cases	lb.	Nom.	.....	2.00	1.65	1.65	1.80
Gum, see Arabi Gum, etc							
Hellebore Root, Black, bbls	lb.	.05½	.06	.06	.05½	.05½	.06
Powdered	lb.	.12	.13	.13	.12	.11	.....
White, 250 lb bbls	lb.	.07½	.08½	.08½	.07½	.07½	1918
Powdered	lb.	.12	.14	.14	.12	.11	.10
Helonias Root, bags	lb.	.80	.....	.80	.80	.74	.50
Hemp Seed, bags	lb.	.04	.05	.05	.03½	.04½	.02½
Henbane Leaves, USP, bales	lb.	.20	.21	.23	.19	.25	.14
Henna Leaves							
Henna Leaves, bales	lb.	.12½	.13	.13	.12½	.12½	.13
Powdered	lb.	.16	.17	.17	.16	.16	.....
Honey, Calif., 120 lb cases	lb.	.11	.12	.12	.11	.11	1918
Hops, bales	lb.	.25	.26	.26	.25	.27	.17
Horehound, Herb, bales	lb.	.08½	.09	.09	.08½	.08½	.06½
Hydrangea Root, bales	lb.	.....	.09	.09	.08	.08½	.07
India Gum, see Karaya							
Insect Flowers	lb.	.25	.27	.35	.22	.22½	.18
Powdered, Pure, 200 lb bb	lb.	.35	.40	.42	.32	.26	.22
Ipecac							
Ipecac Root, Cartagena, bags	lb.	2.90	3.00	3.30	2.90	3.29	1.42½
Powdered, 220 lb bbls	lb.	3.25	3.30	3.65	3.25	3.74	1918
Rio Whole, bags	lb.	3.00	3.05	3.40	3.00	3.51	2.00
Powdered, 110 lb bbls	lb.	3.35	3.40	3.50	3.35	3.74	1918
Isinglass, American, 130 lb cases	lb.	.95	1.00	1.00	.95	.95	.71
Russian (Beluga), boxes	lb.	4.50	.....	4.50	4.50	4.50	3.50
Jaborandi Leaves, bales	lb.	.13	.....	.13	.13	.12	.14
Jalap Root, Whole, 150 lb bag	lb.	.16	.18	.18	.16	.17½	.21
USP, Powd, 250 lb bbls	lb.	.22	.24	.24	.22	.23½	.....
Japan Wax, 24 lb cases	lb.	.18½	.19	.19	.18½	.19½	.11
Job's Tears, White, bags	lb.	.12	.13	.15	.12	.15	.08
Juniper Berries							
Juniper Berries, 125 lb bags	lb.	.05½	.06½	.07½	.05½	.07	.03½
Sifted, bags	lb.	Nom.	.....	Nom.	Nom.	.....	.....
Kamala, boxes	lb.	.85	.90	.95	.85	.94½	.57
Karaya Gum, Powdered, bbls	lb.	.12	.20	.13	.12	.12	.15
Kava Kava Root, bags	lb.	.16	.....	.16	.16	.15½	.18
Kino Gum, Black, cases	lb.	.50	.55	.55	.50	.50	.22
Kola Nuts, 150 lb bags	lb	.10	.11	.11	.09	.09	.08
Kousso Flowers, bags	lb.	.70	.....	.70	.70	.72	.....
Lady Slipper Root, bags	lb.	1.70	.75	1.75	.90	.62	.24
Larkspur Seed, bags	lb.	.....	.30	.40	.30	.61	.25

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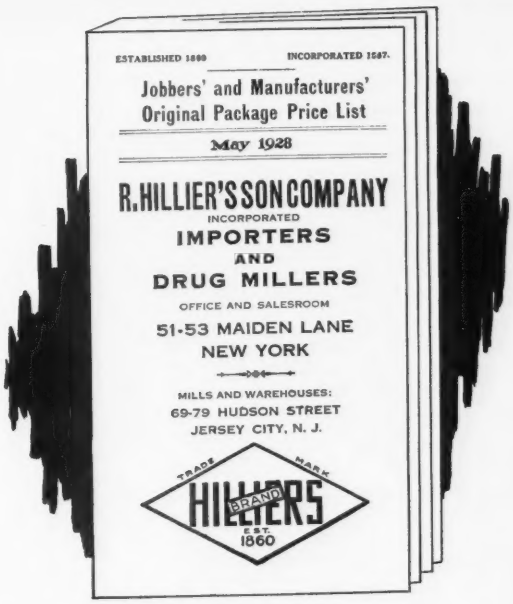

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Drugs and Spices

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Russian ergot that has passed directly into consumption upon release together with the Spanish ergot that has been held probably represents more ergot than is normally consumed.

Fennel Seed — The market for the French seed was firmer in tone due to small spot offerings and a moderate demand. German seed is steady in price but shows no change.

Gingers — The market remains very strong in price and supplies afloat are offering at prices well in line with the spot market. No easiness is in sight.

Horehound Herb — Although demand was slight due the heavy consuming season being well past, spot prices failed to display any signs of weakness and holders were optimistic as to their ability to hold the market firm during the summer months. The carry-over from the crop was reported to be no more than comfortable in volume and no weakness was anticipated on this account.

Henna Leaves — Moving in a routine fashion with sellers holding quite well to quoted levels.

Insect Flowers — Although demand was fair, stocks were plentiful and somewhat more than ample. The primary market, however, showed little change and there did not appear to be any likelihood of a real change in the spot situation.

Ipecac Root — All grades are lower due to more free offerings being received from the primary markets. Cartagena is now priced at $2.90 @ $3.00 per pound for the whole, with the powdered offered freely at $3.25 @ $3.30 per pound. Rio, whole, is priced at $3.00 @ $3.05 per pound, and powdered at $3.35 @ $3.40 per pound. Demand is slight due to the fact that consumers took on their requirements in the high market since they were not certain when free supplies would come through. However, the lower prices are expected to stimulate consumer interest.

Juniper Berries — The market remained quite firm due to firm prices being quoted in the primary markets.

Kola Nuts — Firmer positions have been taken by dealers due to more buying interest. Prices have been advanced to 10c @ 11c per pound for spot goods.

Lady Slipper Root — Higher in most directions at $1.70 @ $1.75 per pound as to quantity. The primary market has strengthened, and demand has been well up to normal.

Lycopodium — The market is lower with prices named at 70c @ 75c per pound as to quantity and seller. Demand has been slight and dealers are apparently to lessen their holdings in anticipation of lower prices from primary markets.

		Current Market		1928 High	1928 Low	1927 Aver.	1914 July
Laurel Berries, bags	lb.	.08	.09	.09	.08	.08	.05
Leaves, Greek, bags	lb.	.06	.07	.07	.05½	.05½	.10
Italian, bales	lb.	.05	.....	.05	.05	.05	.03½
Lavender Flowers, Ordinary	lb.	.30	.35	.35	.30	.30	.20
Selected	lb.	.45	.55	.55	.42	.44½	.28
Lemon Peel, bags	lb.	.09½	.10	.10	.09½	.10	.06½
Licorice Root							
Licorice Root Russian, Whole bbls	lb.	.12	.18	.18	.12	.12	.06
Spanish Natural bales	lb.	.05½	.07	.07	.05½	.05½	.04½
Powdered, bbls	lb.	.09	.10	.10	.09	.09	.....
Selected 2 & 5 lb bbls	lb.	.14	.16	.16	.14	.13	.09
Cutting, 125 lb bags	lb.	.06½	.07	.07	.06½	.06½	.06½
Turkish, 150 lb bales	lb.	.05	....	.05	.05	.05	.....
Linden Flowers with leaves, bales	lb.						
Bales	lb.	.33	.....	.33	.30	.22	.35
Without leaves, bales	lb.	.....	.32	.32	.27	.23	1918
Liverwort Leaves, bales	lb.	.17	.18	.20	.16	.17½	.....
Lobelia, Herb, bales	lb.	.16	.18	.20	.16	.63½	.09½
Seed, bags	lb.	.75	.75	.75	.75	.88	.25
Lovage Root, Imp, bags	lb.	.25	.27	.27	.25	.21½	.22
Lupulin N. F., tins	lb.	1.75	.....	1.75	1.75	1.61	1.75
Lycopodium, 88 lb. cases	lb.	.70	.75	.85	.70	.81	.41
Mace							
Mace Siauw No. 1, cases	lb.	.93	.94	.96	.88	.95	.....
Banda No. 1, cases	lb.	.98	1.00	1.00	.94	1.00	.64
Batavia No. 2, cases	lb.	.65	.67	.68	.65	.73	.49
Malva Flowers, Blue, bales	lb.	.45	.50	.50	.45	.46	.30
Black, bales	lb.	.45	.60	.60	.45	.49	1918
Leaves, bales	lb.	.14	.15	.15	.14	.14	....
Manaca Root, bales	lb	.22	.....	.22	.22	.61	.60
Manna, Large Flake, cases	lb.	.65	.....	.70	.65	.....	.85
Small Flake, cakes	lb.	.....	.58	.60	.50	.53	.39
Sorts, cases	lb.	.45	.....	.50	.45	.43	.....
Mandrake Root bags	lb.	.....	.18	.....	.....	.13	.11
Marjoram, Herb	lb.	.....	.....	.....	.....	.21½	.10
French No. 1 bales	lb	.14½	.15½	.15½	.14½	.22	.10
German, bales	lb.	.12½	.13	.15½	.12½	.....	.18
Mastic Gum, 120 lb cans	lb.	.60	.65	.65	.60	.52½	.62
Matico Leaves bales	lb.	.35	.....	.45	.35	.83	.25
Mesereon Bark bags	lb.	.....	.....	.....	.....	.12½	.09
Millet Seed Yellow, bags	lb.	.04½	.04½	.04½	.04½	.04	.01½
Montan Wax, Crude, bags	lb.	.06½	.07	.07	.06½	.06	.06½
Bleached, bags	lb.	.25	.28	.28	.25	.25	.24
Moss, Iceland, bales	lb.	.07½	.08	.08	.07½	.07½	.05½
Select	lb.	.15	.....	.15	.15	.15	.....
Irish, Bleached, bales	lb.	.11	.12	.12	.11	.11	.08
Mullein Flowers, tins	lb.	2.25	.....	2.25	2.25	2.22	.51
Leaves, bales	lb.	.07½	.08	.08	.07½	.07½	.06
Musk Root, Russian, bags	lb.	.18	.25	.25	.18	.26½	.12
Mustard							
Mustard Seed, Bombay Brown, bags	lb.	.05½	.06½	.06½	.05½	.05½	1918
California, Brown, bags	lb.	.07½	.08	.08	.07½	.08½	.05
Yellow, bags	lb.	.16	.....	.16	.16	.16	.07
Chinese, Yellow, bags	lb.	.07	.08	.08	.06	.07	.....
Dutch, Yellow, bags	lb.	.07½	.07½	.07½	.07½	.08	1916
English, Yellow, bags	lb.	.08½	.09	.09	.08½	.09½	.06
Myrrh Gum, 200 lb, cases	lb.	.75	.80	.80	.62	.30½	.16
Nutgalls, Chinese, bags	lb.	.22	.....	.22	.22	.22	.15
Aleppy, bags	lb.	.25	.....	.25	.25	.26	.15
Powdered, bags	lb	.23	.....	.23	.23	.20	.....
Nutmegs, 110's cases	lb.	.37	.38	.38	.33½	.36	.13½
75's & 80's cases	lb.	.49	.50	.50	.42	.47	.15
Grinding, bags	lb.	.54	.55	.59	.48	.47½	.13½
Nux-Vomica							
Nux-Vomica Buttons, bag	lb.	.04	.05	.05½	.04	.08	.04
Powdered, 200 lb bbls	lb.	.05	.08½	.08½	.08	.08	.07½
Oak Bark, Red, bags	lb.	.06½	.....	.06½	.06½	.06½	.08
White, bags	lb.	.04½	.06	.....	.06	.06	.03
Olibanum Gum 280 lb cases Siftings	lb.	.....	.13	.11½	.13	.....	.....
Tears No. 1, all white	lb.	.25	.29	.....	.....	.10½	.04½
No. 1 Extra	lb.	.27	.30	.29	.27	.27	.....
No. 2	lb.	.20	.....	.20	.18	.16½	.....
No. 3	lb.	.14	.15	.15	.14	.11	.....
Opium Gum, USP, cases	lb.	12.00	13.00	13.00	12.00	12.00	7.70
Granular, cans	lb.	13.00	14.00	14.00	13.00	13.00	8.75
Powdered, USP, cans	lb.	13.00	14.00	14.00	13.00	13.00	8.65
Orange Flowers, cases	lb.	.25	.....	.25	.25	.25	.....
Peel, Bitter, bags	lb.	.10	.....	.10	.10	.10	.07½
Sweet, bags	lb.	.08½	.....	.08½	.08½	.08½	.04
Orris Root							
Orris Root Flor. bid, bags	lb.	.10½	.12	.12	.10	.09	.19
Powdered, 200 lb bbls	lb.	.14	.15	.15	.13	.12½	1918
Verona, bags	lb.	.09½	.11	.11	.09	.08½	.14
Powdered, 200 lb bbls	lb.	.13	.14	.14	.13	.12	....
Fingers, boxes	lb.	.90	.....	.90	.80	.64	.75
Ozokerite Wax, Brown, Hard	lb.	.....	.....	.....	.....	.....	.21
Bags	lb.	.24	.25	.25	.24	.24	.....
Green, Hard, bags	lb.	.30	.31	.31	.30	.30	.25
Yellow, Refined, bags	lb.	.37	....	.37	.37	.37	.25
Papain, Crude, 150 lb cases	lb.	3.55	3.60	4.90	3.55	4.85	2.80
Pure, Powdered, 10 lb bot	lb.	3.70	3.75	4.35	3.75	5.25	.....
Paprika, bags	lb.	.25	.26	.26	.23	.33	.....
Pareira Brava Root, bags	lb.	.11	.12	.12	.11	.11	.14
Parsley Seed, bag	lb.	.25	.....	.25	.25	.27	.20

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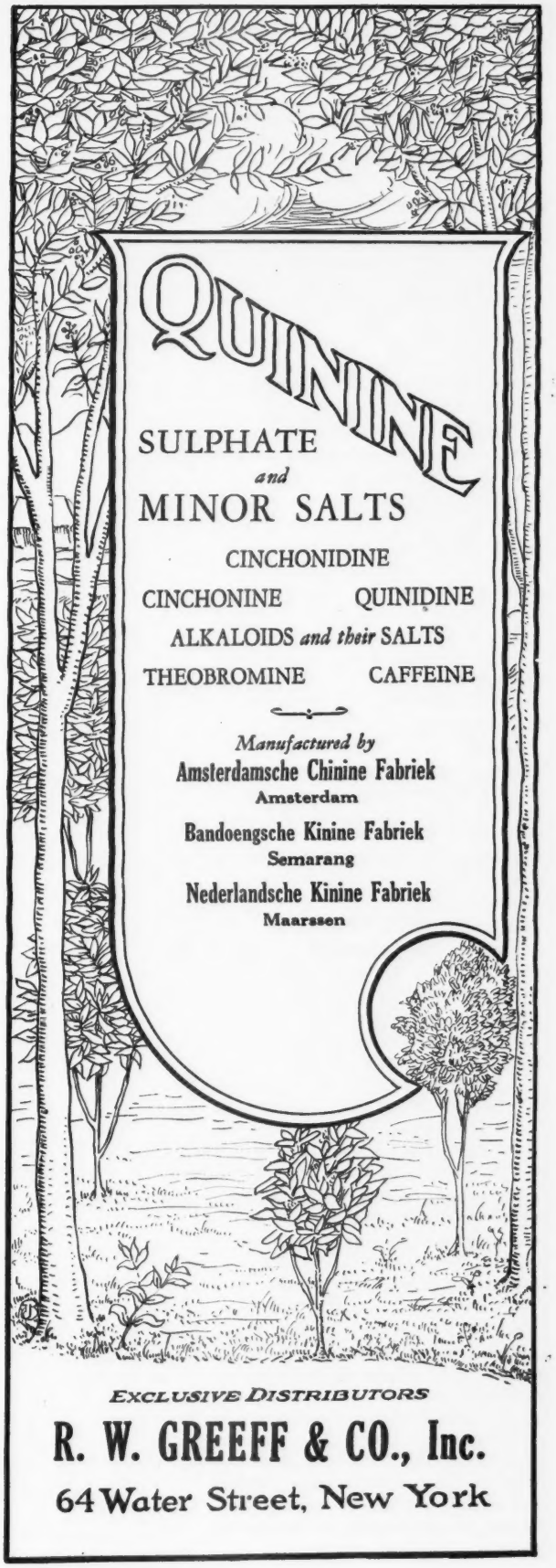

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Standard Purchasing Power of the Dollar: July 1914 $1.00 - Jan. 1927 68.7c - July 1927 71.7c - April 1928 67.8c

Malva Flowers — The blue variety was lowered by dealers to 45c @ 50c per pound due to decreased interest on the part of buyers at prevailing prices. However, the black was firmly maintained at 45c @ 60c per pound with stocks well in line with consuming demand.

Mustard Seed—The market remains steady in price position with Chinese slightly higher at 7c @ 8c per pound as to quantity and position. Other grades are unchanged. Demand is well balanced with supplies at current prices.

Myrrh Gum—The market holds its strong position and prices show no easiness. Consumers are buying cautiously in the firm market.

Nux Vomica — While ordinary sized lots are selling firmly at 4c @ 5c per pound, larger buyers are securing supplies at about 3c per pound. Demand is good but supplies are plentiful.

Orris Root — A firmer tone is evidenced in the market and prices are slightly higher in some directions. Demand has quickened somewhat and stocks are no more than comfortable in size.

Papain — Lower prices are named on both the crude and pure powdered materials. Dealers offer crude freely at $3.55 @ $3.60 per pound, and pure powdered at $3.70 @ $3.75 per pound. Stocks are of usual size but consumer demand has not continued in steady volume.

Paprika — Primary markets are lower and this has been reflected in spot offerings. Goods are now held at 25c @ 26c per pound as to seller and quantity.

Pepper — Strength continues to characterize this market with prices slightly higher on most grades. Alpeppy is now held firmly at 42c @ 43c per pound; Lempong at 42c @ 43c; Tellecherry at 43c @ 45c; Muntock at 62c @ 63c; Mombasa red chillies at 43c @ 45c; and capsicum Bombay at 22c @ 23.

Peppermint Leaves — While domestic leaves show no appreciable change in price, imported leaves are quoted lower at 43c @ 45c per pound as to quantity. This is due to lower prices from primary markets indicating rather large supplies available abroad.

Pink Root — A very strong tone characterized this market and were advanced. Various sellers quote over a rather wide spread depending upon the individual's view of the market. Most prices, however, are in the range of 65c @ 75c per pound. None too heavy spot supplies, together with a good demand and strong primary markets, are responsible for the market strength.

		Current Market	1928 High	1928 Low	1927 Aver.	1914 July
Passion Flower, bales	lb.	.08	.09	.07	.07	.08
Patchouli Leaves, bales	lb.	.27	.29	.26	.26	.10
Pennyroyal, Herb, 100 lb bags	lb.	.07	.....	.07	.07	.07
Leaves, 100 lb bags	lb.	.14	.16	.14	.16	.04
Pelitory Root, bales	lb.	.18	.19	.18	.16	.20
Pepper, Singapore, bags	lb					
Black bags	lb.	.....	.38	.30	.30	.11½
White, bags	lb.	.....	.60	.54½	.48	.18½
Aleppy, bags	lb	.42	.43	.36½	.30½	.11½
Lempong, bags	lb.	.42	.43	.38	.31	.10½
Tellecherry, bags	lb.	.43	.44	.38	.31	.11½
Muntock, bags	lb.	.62	.63	.53	.43½	.....
Red Chillies,	lb.					
Japan No. 1 bags	lb.	.26	.....	.26	.26	.14
Mombasa, bags	lb.	.43	.45	.38	.30	.14½
Capsicum, Bombay, bags	lb.	.22	.23	.21	.21	.....
Peppermint						
Peppermint Leaves, Imp, bales	lb.	.43	.45	.50	.43	.42
Domestic, bales	lb.	.24	.27	.40	.24	.11
Herb, bundles	lb.	.12	.....	.12	.12	.....
Peru Balsam, see Balsams	lb					
Pichi Leaves, bags	lb.	.13	.14	.14	.13	.12
Pimento Select, bags	lb.	.19	.20	.20	.16½	.17 .04½
Pink Root, True, bags	lb.	.65	.75	.75	.62	.53½ .65
Pitch Burgundy, see Burgundy Pitch						
Pleurisy Root, bags	lb.	.22	.....	.22	.22	.20 .15
Poke Berries, bags	lb.	.....	.30	.30	.20	.26 .08
Root, 200 lb bales	lb.	.09	.10	.10	.09	.09 .05½
Pomegrant Bark of Root, bags	lb.					
Bags	lb.	.20	.22	.44	.20	.25½ .12
Bark of Fruit, bags	lb.	.30	.....	.30	.30	.30 .06
Bark of Tree, bags	lb.	.15	.18	.21	.15	.21 .....
Poppy						
Poppy Flowers, Red, bags	lb.	.60	.65	.65	.60	.60 .40
Heads, bags	lb.	.50	.....	.50	.50	.50 .25
Seed, Dutch, bags	lb.	.09	.10	.12	.09	.13 .06½
German, bags	lb.	.08½	.09½	.10	.08½	.10 .....
Blue Indian, bags	lb.	.10½	.....	.10½	.10½	.10½ 1917
White, Indian, bags	lb	.25	.....	.25	.25	.25 1917
Prickly Ash Bark	lb.	.14	.17	.17	.14	.14 .14
Southern bags	lb.	.13½	.14	.16	.13½	.14 .14
Northern, bags	lb.	.20	.25	.25	.20	.21 .25
Berries, bags	lb.	.....	.22	.22	.22	....
Prince's Pine, bales	lb.	.....	.17	.17	.14	.14 .08
Pulsatilla, Herb, bags	lb.	.....	.14	.14	.12	.12 .30
Pumpkin Seed, bags	lb.	.17	.18	.25	.16	.16 .12
Quassia Chips, bags	lb.	.06½	.....	.06½	.06½	.06 .06½
Quebracho, bulk, 125 lb bbl	lb.	.....	.35	.36	.36	.44½ .11
Queen of the Meadow, Herb	lb.	.07	.08	.09	.07½	.07½ .....
Root, bags	lb.	.....	.07	.08	.07	.07 .07
Quince Seed bags	lb.	.60	.70	.75	.60	.60 .60
Cape, bags	lb.	1.25	1.50	1.50	1.25	1.16½ .56
Rape Seed, South American bags	lb.	.06	.06½	.06½	.04½	.05 .....
Dutch, bags	lb.	.06	.06½	.06½	.05½	.08 .....
Japanese, small bags	lb.	.06½	.07	.07	.06½	.06½ 1916
Raspberries, Dried, bbls	lb.	.60	.65	.85	.60	1.03 .27
Red Saunders, bags	lb.	.08	.....	.08	.08	.08 .....
Ground	lb.	.12	.....	.12	.12	.12 .....
Rhatany Root, bags	lb.	.11	.12	.12	.11	.10 .11
Rhubarb Root, HD, cases	lb.	.40	.42	.45	.43	.45 .21
Powdered, bbls	lb.	.47	.48	.53	.47	.56 .....
Rosemary Leaves, bales	lb.	.....	.06	.06	.05	.05 .03
Flowers cases, bales	lb.	.25	.30	.30	.25	.25 1918
Rose Petals, pale	lb.	.45	.....	.38	.38	.30 .18
Red	lb.	1.60	1.70	2.20	1.70	1.85 1.75
Rue, Herb, bales	lb.	.18	.20	.20	.18	.18 .08½
Sabadilla Seed, bags	lb.	.30	.33	.35	.30	.33 .15
Powdered, bbls	lb.	.35	.36	.36	.32	.39 .....
Saffron						
Saffron Flowers, American, bales	lb.	.....	.35	.38	.36	.39 .44
Valencia, 1 lb cans	lb.	12.00	13.00	16.00	12.00	17.00 11.50
Sage Dalmatian, bales	lb.	.07	.....	.05½	.05½	.06 .04
Greek, bales	lb.	.04½	.....	.04½	.04½	.04½ 1918
Sandarac Gum, 300 lb bbls	lb.	.30	.35	.35	.30	.30 .19
Sarsaparilla Root, Honduras, bales	lb.	.55	.58	.52	.52	..... .65
Mexican, bales	lb.	.22	.26	.29	.22	.34½ .30
Sassafras Bark, Ordinary, bales	lb.	.16	.17	.17	.16	.15 .12
Select, bales	lb.	.26	.27	.27	.26	.26 .16
Savory Leaves, bales	lb.	.09	.10	.10	.08	.08 .03½
Saw Palmetto Berries, bags	lb.	.14	.16	.20	.14	.64 .09
Scammony Resin, boxes	lb.	1.30	1.35	1.35	1.30	1.30 1.75
Root, bags	lb.	.08½	.....	.08½	.08½	.08½ 1918
Senega Root, bags	lb.	1.30	1.40	1.40	1.27	.90 .50
Senna						
Senna Alex., 150 lb cases	lb.	.25	.30	.30	.25	.23 .35
Half leaf, 150 lb cases	lb.	.13	.15	.15	.13	.13 .30
Sifting, 400 lb bales	lb.	.10½	.11	.11	.10½	.10½ .13
Pods 310 lb bales	lb.	.17	.18	.18	.17	....
Powdered, 200 lb bbls	lb.	.16	.17	.17	.16	.17½ 1918
Tinnevelly, Bold, 350 lb bbls	lb.	.15	.17	.20	.15	.17 .06
Medium Leaf, bbls	lb.	.09	.10	.13½	.09	.12 .08½
Small Leaf, bbls	lb.	.07	.08	.08½	.07	.07½ .....
Pods, 350 lb bbls	lb.	.....	.10	.13	.11	..... .05
Powdered, 200 lb bbls	lb.	.10	.11	.10	.11	.10½ 1918
Serpentaria Root, bags	lb.	.75	.77	.77	.75	.76 .42

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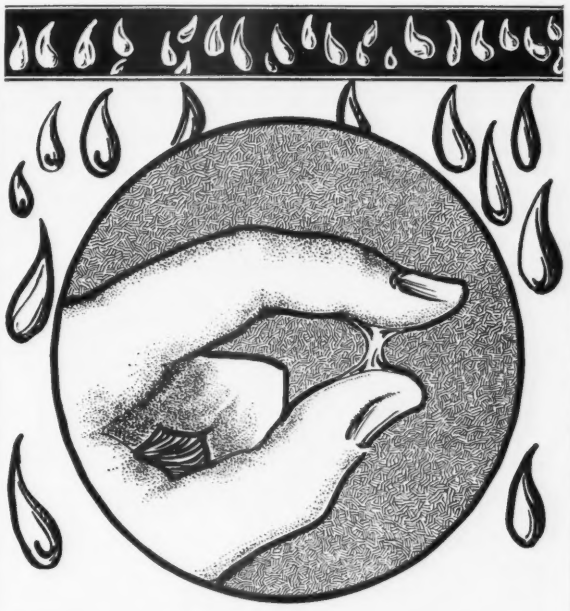

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Drugs and Spices

Standard Purchasing Power of the Dollar: July 1914 $1.00 - Jan. 1927 68.7c - July 1927 71.7c - April 1928 67.8c

Poppy Seed — The Dutch seed is coming through at slightly lower prices and the spit market has declined to 9c @ 10c per pound as to quantity.

Pumpkin Seed — Slightly higher in the spot market at 17c @ 18c per pound. Demand is normal and stocks are about average. The change does not indicate any unusual conditions.

Raspberries Dried — Sharply lower prices are named on this material at 60c @ 65c per pound as to quantity. Sellers are in possession of large stocks and, with primary markets declining and demand slight, liquidation of a portion of the material held is being attempted.

Rhubarb Root — Demand is steady and stocks are of average volume. Primary markets and spit market remain unchanged in quotations.

Saffron — The Spanish variety continues to decline in price and is now offered freely at $12.00 @ $13.00 per pound. This represents a decline of 25c per pound from last month.

Sarsaparilla Root — Honduras is steady and unchanged in price at 55c @ 58c per pound. While the Mexican has shown no real change, the spread of prices from different sellers has narrowed downward and is given at 22c @ 26c per pound.

Savory Leaves — Slightly higher prices are named on spot at 9c @ 10c per pound. This represents no real basic change in the situation, but is of minor importance.

Senega Root — The heavy export demand continues to hold up prices in this country and a further advance has occurred. Spot goods are now firmly held at $1.30 @ $1.40 per pound as to seller and quantity.

Strophanthus Seed — The Hispidus variety is not available and quotations are nominal. This occurrence has strengthened the Kombe offerings which are now held firmly at $2.90 @ $3.00 per pound.

Tumeric Root — Prices continue to climb as material becomes increasingly scarce. The future does not hold any promise of liberal supplies of Alpeppy and it appears as though the high market will continue for some time to come.

Wild Cherry Bark — Demand is slight but stocks are also. Prices are holding at unchanged figures in all directions.

Vanilla Beans — The spot market shows little change. Reports from Mexico tell of very slight rains and consequent poor growing conditions during March and April. Unless rains come in May, the position may develop considerable strength.

Witch Hazel Bark — Quiet but steady with demand and stocks well balanced at present prices.

		Current Market	1928 High	1928 Low	1927 Aver.	1914 July
Shellac, T. N., bags	lb.	.57	.58	.57	.50	.15½
Simaruba Bark, bales	lb.	.11	.18	.08	.07½	.11
Skullcap Leaves, Eastern, bales	lb.	.....	.35	.33	.45	.15
Western, bales	lb.	.23	.26	.23	.23	.....
Skunk Cabbage, Stripped, bales	lb.	.14	.16	.14	.12½	.10
Snake Root, Canada Natural, bags	lb.	.27	.30	.27	.28½	.14
Canada, Stripped, bags	lb.	.55	.....	.55	.55	.40
Soap Bark, 150-200 lb bbls	lb.	.14	.....	.14	.13	.09
Cut, 125-175 lb bags	lb.	.17	.....	.17	.15	.10½
Crushed, 200 lb bbls	lb.	.16	.....	.16	.15	.09½
Powdered, bbls	lb.	.18	.....	.18	.17	.....
Spearmint Leaves, American, bales	lb.	.25	.30	.30	.25	.23	.15
Herb, bales	lb.	.14	.....	.14	.14	.14	.....
Spermaceti, blocks, cakes, cases	lb.	.32	.35	.35	.32	.32	.....
Spikenard Root, bags	lb.	.23	.25	.25	.23	.17	.10
Squaw Vine, bales	lb.	.20	.21	.21	.21	.18	.08
Squills, White	lb.	.12	.14	.14	.10	.06	.04
Powdered, bulk	lb.	.15	.....	.15	.15	.13	1918
Stavesacre Seed, bags	lb.	.17	.18	.19	.17	.17	.10½
Stillingia Root, bags	lb.	.12	.....	.12	.12	.22	.06
Stone Root, bags	lb	.08	.09	.09	.08	.08	.06
St. Ignatius Beans, bags	lb.	.14½	.15	.15	.14½	.15	.18
St. John's Bread, bags	lb.	.....	.09	.14½	.09	.14	.06
Stramonium							
Stramonium Leaves, bales	lb.	.19	.20	.20	.17½	.18	.07½
Seed, bags	lb.	.07½	.....	.07½	.07½	.07½	.08
Strophanthus Seed, Hispidus	lb	Nom.	.....	.07½	.07½	.07½	.08
Kombe, bags	lb	2.90	3.00	3.00	2.00	1.98	.40
Styrax Liquid, Artificial	lb.	.26	.35	.35	.26	.26	.18
Genuine, USP	lb.	.43	.45	.45	.36	.36	.18
Sunflower Seed, bags Calif	lb	.08	.09	.09	.06	.08	.04
South American, bags	lb	.06½	.07	.07	.06	.06	.....
Tagalder Bark, bags	lb.	.05	.06	.06	.05	.05	1918
Tamarinds, bbls,	lb.	.05½	.06	.06	.05½	.05½	.04½
Kegs	keg	3.85	.....	3.85	3.85	3.82	2.40
Tansy, Herb, bales	lb	.11	.14	.14	.11	.11	.07
Tar, Barbadoes, 50 gal bbls.	lb.	1.40	1.45	1.45	1.40	1.40	.....
Thus Gum, 280 lb bbls	lb.	.11½	.20	.20	.11½	.11½	.03½
Tiila, see Linden							
Thyme							
Thyme, Spanish, bales	lb.	.08½	.09	.09	.08½	.08½	.07
French, bales	lb.	.08	.....	.08	.08	.08	.....
Tolu Balsam, see Balsams	lb.						
Tonga Bark, bags	lb.	.55	.....	.55	.55	.70	.40
Root, bundles	lb.	.55	.....	.55	.55	.66	.38
Vine, bundles	lb.	.55	.....	.55	.55	.66	.38
Tonka Beans, Angostura Cases		1.90	2.00	2.00	1.90	1.90	.....
Para cases	lb.	.90	.....	.90	.90	.90	.....
Surinam cases	lb.	1.25	1.50	1.50	1.25	1.25	1.10
Tragacanth Gum No. 1 100 lb cases	lb.	1.55	1.60	1.60	1.55	1.55	1.10
No. 2	lb.	1.40	1.50	1.50	1.40	1.40	.80
No. 3	lb.	1.25	1.30	1.30	1.25	1.25	.65
Powdered 50 lb boxes	lb.	.85	1.10	1.10	.85	.85	.....
Turkish cases	lb.	.45	.....	.45	.45	.45	.85
Turmeric Root Madras bags	lb.	.10	.12	.12	.06	.06	.04½
Aleppy bags	lb.	.11	.13	.13	.06½	.06½	.04½
Powdered	lb.	.13	.15	.15	.10	.10	.....
China bags	lb.	.11	.12	.11	.09	.09	.03½
Turpentine Venice True, 80 lb cases	lb.	.32	.40	.40	.32	.32	.23½
Artificial, 80 lb cs.	lb.	.17	.....	.17	.17	.17	.08½
Unicorn Root, False, see Hellonias True, see Aletris							
Uva Ursi Leaves, bales	lb.	.06	.07	.07	.06	.05½	.03½
Valerian Root, Belgian, bags	lb.	.17	.18	.18	.17	.28	.07
Vanilla Beans, Mexican, whole, cases	lb.	3.25	4.00	4.00	3.25	4.50	4.00
Cuts, cases	lb.	2.50	2.75	2.75	2.50	2.75	3.12½
Bourbon, cases	lb.	2.00	2.75	2.75	2.00	2.30	3.37½
South American, cases	lb.	2.50	2.75	2.75	2.50	2.65	3.50
Tahiti, Green, label cases	lb	2.25	2.50	2.50	2.25	2.37½	2.25
Vetivert Root, 100 lb bags	lb	.30	.....	.30	.30	.33	.....
Violet Flowers, bags	lb.	.70	.....	.70	.70	.77½	.33
Wahoo Bark of Root, bags	lb.	.60	.62	.62	.60	.60	.42
Bark of Tree, bags	lb.	.30	.35	.35	.30	.31	.15
White Pine Bark, Roseed, bags	lb	.08	.....	.08	.08	.07½	.04
White Poplar Bark, bags	lb.	.06	.07	.07	.06	.06	.03½
Wild Cherry Bark, Thin, Green	lb.	.....	.....	.....	.....	.....	.07
Rossed, bales	lb.	.11½	.12	.12	.11½	.11½	.08
Thick Rossed, bales	lb.	.09	.....	.09	.09	.09	.....
Thin Natural, bales	lb.	.07	.08	.08	.07½	.07	.07
Thick Natural, bales	lb.	.05	.06	.06	.05	.05	.06
Wild Indigo Root, bags	lb.	.13	.14	.14	.13	.13	.....
Willow Bark, bags	lb.	.06	.....	.06	.06	.06	.07
White, bags	lb.	.15	.....	.05	.15	.15	.....
Witch Hazel Bark, bags	lb.	.06½	.08	.08	.06½	.06½	.03½
Leaves, bales	lb.	.08	.09	.....	.....	.08	.06
Wormseed, American, bags	lb.	.15	.....	.20	.15	.15	.09½
Levant, bags	lb	.....	.....	.....	.....	3.81	.36
Wormwood, Herb, Imp, bales	lb.	.10	.10½	.10½	.10	.09	.07
Yellow Root (Zanthorza), bags	lb.	.14	.....	.14	.14	.14	.....
Dock Root, bags	lb.	.10	.11	.11	.10	.09½	.06
Perilla Root, bags	lb.	.14½	.....	.14½	.14½	.14½	.08
Yerba Mate, bags	lb.	.18	.20	.20	.18	.18	.....
Santa, bags	lb.	.09½	.11	.11	.09½	.09½	.08
Zedoary Root, bags	lb.	.06½	.07	.07	.06½	.06	.04½

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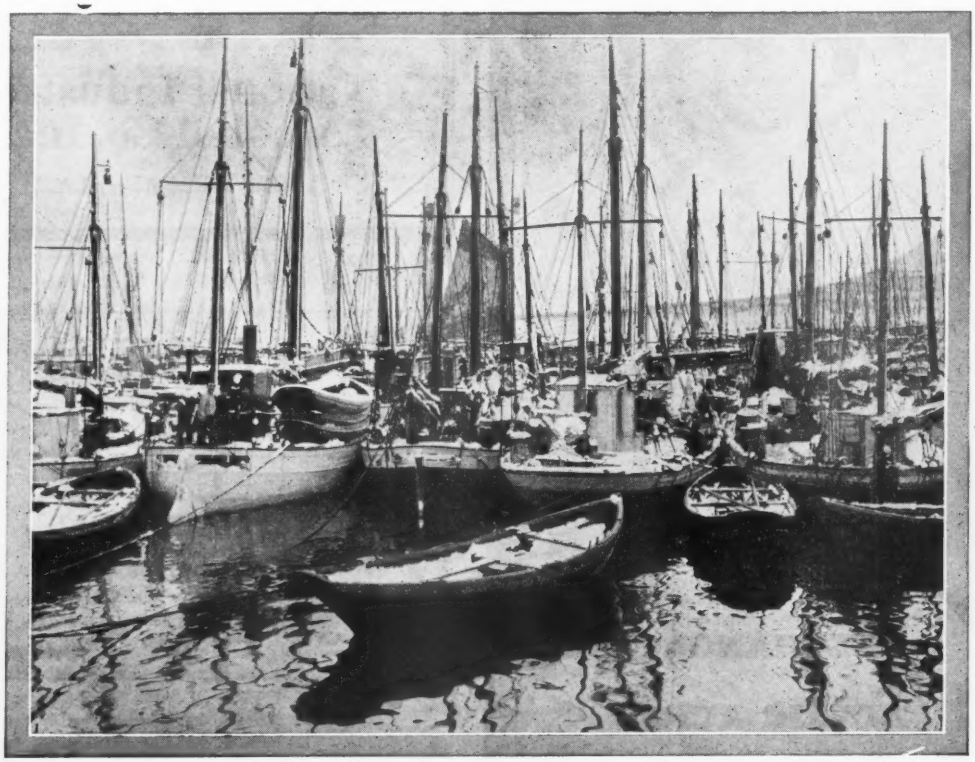

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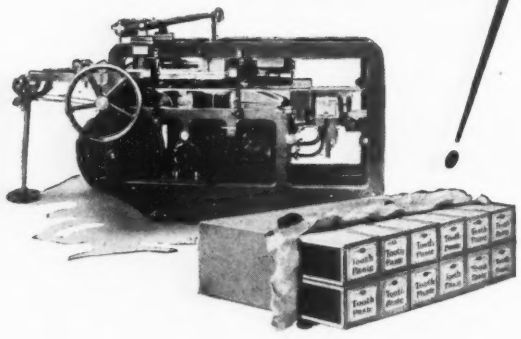

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No manufacturer of package goods can afford to ignore the large and immediate savings made possible by bundling packages on this machine, instead of packing them in cardboard boxes.

By eliminating the expensive packing carton, machine bundling saves 20% on the cost of material. (You can easily figure out what this would amount to in your case.)

One machine also saves from $2,000 to $5,000 a year on labor.

And the elimination of the heavy packing carton makes large savings in freight charges.

In cases where the buyer pays the shipping charges, the saving in freight is an important selling advantage.

Machine bundling is suitable for any packages which are comparatively light in weight—tooth paste, shaving cream, talcum powder, etc. In fact, for such articles, cartons are a sheer waste, as in most cases these units are packed in shipping containers.

Why not send us a dozen of your packages, so that we may show you how our machine would bundle them. We will also give you cost figures to compare with your present costs. Get in touch with our nearest office.

PACKAGE MACHINERY COMPANY
SPRINGFIELD, MASSACHUSETTS
New York: 30 Church St. Chicago: 111 W. Washington St.

Patent or Trade-Mark?

(*Continued from page 404*)

secured for a new pharmaceutical product, both under the patent law and under the trade-mark law. There are many instances where it is desirable not only to protect the trade-mark name which the manufacturer has applied to the preparation, but also to prevent others from marketing the preparation, even under a different name, by patenting the preparation. If this is done, very great care must be exercised in the labeling of the product; otherwise, the owner of the preparation is likely to find he has unwittingly presented the public with his own trade-mark name, because it is a principle of trade-mark law that, where the mark is the name of a patented article, and is not a brand or trade-mark name so that the public has been educated to call for the patented article by this trade-mark name over a period of years, and does not know any other name by which to call the article at the time when the patent has expired, the trade-mark becomes public property. In order to avoid a situation of this character, the bottles or other containers which contain the preparation must be labeled in such a way that the trade-mark name appears in the trade-mark sense, while the actual chemical or other name also appears upon the container. One of the usual methods of marketing such preparations is to refer to the trademark-name as the brand name, followed by the actual chemical name or an abbreviated chemical name of the substance itself, so that, at the expiration of the patent monopoly period, other manufacturers are free to supply the public with goods which are marked with the chemical name, but may not use the brand name. Where particularly valuable brand names are employed, it is desirable to use these brand names in conjunction with more than one chemical substance. It is obvious that the particular method of marking and the policy to be followed in order to avoid the loss of trade-mark rights will depend upon the particular preparation involved, and will differ in each instance. Great care should be exercised to avoid using any trade-mark name in the patent description, as this is *prima facie* proof that the trade-mark name is the actual name of the article itself.

Combination Is Best

Summing up, it would appear that, of the three methods open to the pharmaceutical manufacturer for protecting his new products, the best method is a combination of trade-mark and patent protection, but that in pursuing this method, the greatest care must be exercised so that the trade-mark rights, which, in general, are more valuable than the patent rights, are not jeopardized in securing the patent monopoly. In considering the above remarks in connection with the export trade of the United States, it is possible to obtain patent protection for the manufacture of pharmaceutical preparations in a large number of countries, but it is almost invariably impossible to

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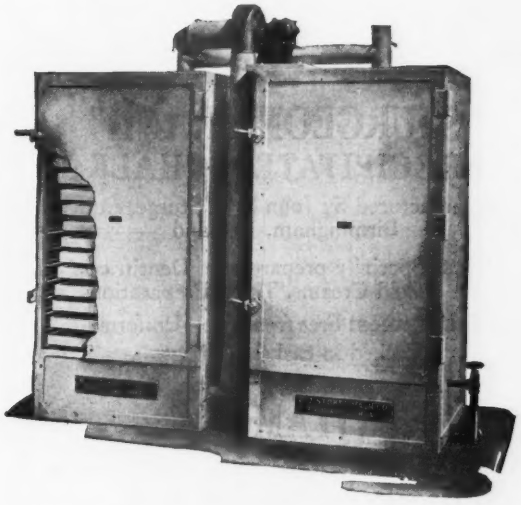

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PRECIPITATED CHALK
manufactured by John & E. Sturge, Ltd., Birmingham, England
Uses: Specially prepared for Dentifrices, Cold Creams, Toilet Preparations.
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271 MADISON AVENUE
NEW YORK CITY

patent the preparation itself in the large majority of foreign countries. This is because the Governments of these countries regard the patenting of medical preparations with disfavor.

It may, therefore, be stated in a general way that trade-mark protection affords the greatest possible protection for pharmaceutical products in foreign countries, and that, if any concern has a world trade policy, this policy must necessarily include the registration of its trade-mark in foreign countries.

A Change in Citronella Market

(Continued from page 407)

Figures sent by Trade Commissioner T. C. Barringer at Batavia, Java, give the following figures for exports of Java citronella oil:

	1926 Pounds	1927 Pounds
Netherlands,	112,434	235,892
Great Britain,	566,582	553,354
Germany,	103,616	167,553
France,	974,433	983,251
United States,	595,242	687,835
Singapore,	8,818	4,409
Hongkong,	6,613	6,613
China,	44,092	37,478
Japan,	165,345	171,962
Australia,	26,455	30,864
Total,	2,603,630	2,879,211

From these figures it will again be noticed that this country is increasing her citronella oil imports sharply. A gain of approximately 92,000 pounds was recorded in 1927. The Netherlands doubled her imports; Germany stepped up sharply; Great Britain showed a minor loss; and other countries remained about unchanged. Commissioner Barringer gives the following comment: "In spite of generally lower prices, the quantity of citronella oil exported from Netherland East Indies increased during 1927." The values that the Commissioner give for the oil show an average price of 61.4c per pound during 1926, against an average price of 42.9c per pound during 1927.

From an analysis of the present market, it is quite likely that the advance in price in Ceylon oil is the result of the United Kingdom and France resuming normal buying during 1928. If they had bought at the same rate through 1926 and 1927, exports from Ceylon would have increased in 1927 instead of decreased. Therefore, if they buy at the 1926 rate during 1928, we can expect a strong market.

The failure of the Java market to respond to the advance in the Ceylon oil is the result of the heavy production in Java. But all that is needed to cause higher prices for Java oil is a realization that demand is increasing and that geranium oil is definitely higher.

That the two grades of citronella should sell so closely in price is not surprising when the attitude of

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The Successor to Vanillin

As the sailing vessel gave way to the steamship—as the horse gave way to the automobile—as the candle and kerosene lamp gave way to the electric light—so is Vanillin slowly, but surely, giving way to

Bourbonal

This interesting product was developed in the famous Haarmann & Reimer laboratories that gave Vanillin, Ionone, and many other important aromatic bodies to the world. It has many outstanding advantages, chief among which are its great strength, its remarkably close approximation of the aroma of the Vanilla bean, its tenacity, and its stability under heat and cold.

Four times stronger than Vanillin

One part of Bourbonal will do the work of four parts of Vanillin—and do it better and more economically. Any product in which Bourbonal is used will have a finer, truer, and more lasting Vanilla aroma and flavor than when Vanillin is used.

Exhaustive comparative tests by eminent authorities on aromatic products and by the leading manufacturers of perfumes, toilet preparations, pharmaceuticals, confectionery and other products in which Vanillin has heretofore been used demonstrate conclusively the great superiority of Bourbonal.

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a buyer is taken into consideration. A buyer of Ceylon citronella oil wants the same thing continually. He does not want to change his formula anymore than he wants to change the odor of his product. We have seen that consumers are willing to pay more for Bourbon geranium than for the African, although the African is the better oil. It is so in citronella oil and the Ceylon might easily sell far above Java unless the Java market develops some strength of its own, as it is likely to do.

Judge Favors Chain Stores

(*Continued from page 425*)

against the danger of monopoly. As the chain stores have developed in numbers, in resources, in capital and in efficiency, they have perhaps become essential for the efficient distribution of merchandise to the general public. Many of them are in hands of great corporations whose stock is for sale on the stock exchange and the curbs of great cities, and in the hands of a large number of our people who have invested therein their savings and share in their profits.

Limit on Power of Legislature

"It may be within the power of the Legislature and perhaps within its duty to regulate corporations dealing in the necessities of life, but it certainly is not within its power to single some of them out for destruction until they become a real menace to the public health, morals, order or security. There is nothing in the record that even remotely proves or tends to show that this act bears any relation either directly or indirectly to the protection of the general public in their health, morals, good order, security or general welfare.

"This seems to be the first case in which a statute dealing with the chain stores has been considered by any of the courts of this country except the case of The Great Atlantic & Pacific Tea Co. vs. Doughton, Commissioner of Revenue of North Carolina, in the Superior Court of Wake County, North Carolina. The act there passed was one to impose a special license tax on owners of six stores or more, while such tax was not imposed on owners of five stores or less, and the courts held the act to be unconstitutional and void. No opinion was filed but the finding of facts showed the principles involved in the case before us, or most of them, were considered and the act was declared to be unconstitutional and void.

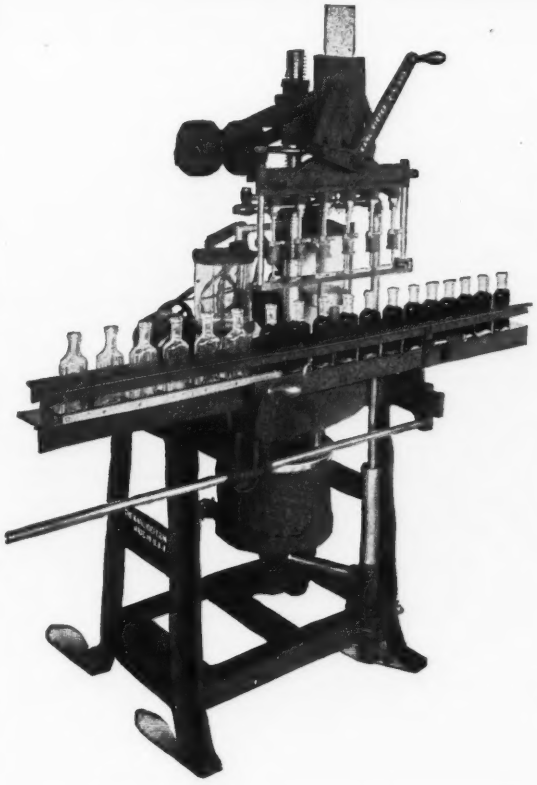
Not Submitted for Final Decree

"For these reasons we have felt it our duty to give in detail the reasons for our judgment and to discuss the interesting questions that have been raised more fully than might otherwise have seemed necessary in the disposition of the case in this court. The case is not submitted for final decree.

"Since this is a Government of laws and not of men, and the duty rests upon all courts, when their jurisdiction is properly invoked, to see to it that no right secured by the supreme law of the land is impaired or destroyed by legislation, this court, under the power conferred upon it, will direct the issue of a permanent injunction restraining the enforcement of Chapter 554 of the Acts of the General Assembly of Maryland, passed in the year 1927, because it is repugnant to the Constitution."

Imports of chemical and pharmaceutical products into Hait i from all countries increased from 159,100 gourdes (1 gourde= $0.20 United States Currency) during the quarter ending September 30, 1925 to 214,386 gourdes during the corresponding period in 1927. Perfumes and toilet articles, however, show a decrease in value from 184,395 gourdes in the 1926 quarter, ending September 30, to 94,671 gourdes for the same quarter in 1927.

Du Pont Cellophane Co. announces removal of Boston office to room 1210, Little Building, 80 Boylston st., and Chicago office to room 1748, State Bank Building, 120 S. La Salle st.



The "Cinati" Filler

Fills light and heavy liquids of all kinds into practically any style or shape of bottle

A really simple vacuum filling machine that does perfect work.

An unskilled, inexperienced girl can be taught in ten minutes to operate this machine successfully.

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Changes from one size bottle to another can be made in three minutes or less.

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It bottles your product without drip or spill, mess or waste.

A compact complete unit—well-made, durable.

No wooden frames or metal trays for holding panel bottles.

Not a cheap angle iron and wood combination with a lot of rubber hose.

Perfect centering of bottles—no jamming or breaking of stems and bottles.

Automatic overflow return system. No glass jars to watch and empty.

Ask for descriptive pamphlet.

The Karl Kiefer Machine Co.

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Nulomoline No. 11 is a perfectly balanced syrup of high density. It will not ferment, crystallize or mould. Keeps indefinitely, contains no preservative.

To use as syrup: Reduce to the desired density by the addition of water — no percolating — no extra cleaning.

Nulomoline No. 11 is like glycerine in many respects and has long been used in various pharmaceutical preparations.

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Seeing is Believing!

We have prepared a unique demonstration of the value of a properly made metal screw cap.

"It costs you nothing—"
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"And in exactly one minute explains why the nation's foremost manufacturers entrust their famous products to our caps for a good tight seal."

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New Incorporations

Warren Pharmaceutical Products Co., Inc., Newark, N. J. New Jersey Charter. Capital 2,500 shares common.

A. W. Kretschmar, New York. Medicines. Capital $10,000.

Crossman Pharmacal Co., Park Ridge, N. J. New Jersey Charter. Capital $10,000.

Fletcher Preparations, New York. Medicines. Capital $25,000.

Thomas J. Hoffman, Tonawanda, New York. New York Charter. Carbonated waters. Capital $15,000.

Jenkin's Laboratories, Auburn, N. Y. New York Charter. Pharmaceutical preparations. Capital $40,000.

Diana Pharmaceutical Corp., New York. Capital $20,000.

Lupe, New York. Cosmetics. Capital 200 shares common.

Nezon Co., New York. Toilet preparations. Capital 2,000 shares common.

Dr. Henry Reed Service, Wilmington, Del. Delaware Charter. Medical service to hotels. Capital $125,000.

Browncone Company, Inc., Gladstone, N. J. New Jersey Charter. Manufacture drugs. Capital $100,000 pf., 5,000 shares common.

Rugof Chemist, New York. Cosmetics. Capital 200 shares common.

Clayton Pharmacal Co., Inc., Park Ridge, N. J. New Jersey Charter. Drugs. Capital $10,000.

American Biochemical Laboratories, Inc., New York. Delaware Charter. Manufacture and distribution of biological products. Capital $250,000.

Andron Co., Wilmington, Del. Delaware Charter. Drugs, medicines. Capital 4,500 shares common.

Vandyke Chemical Co., Philadelphia, Pa. Delaware Charter. Druggists. Capital 75,000 shares common.

Latherite Company. Delaware Charter. Drugs. Capital stock 1,000 shares common.

Andron Co., Wilmington, Del. Delaware Charter. Medicines and drugs. Capital 4,500 shares common stock.

Armstrong Chemical Co., East Syracuse, N. Y. New York Charter. Oils, pharmaceuticals. Capital 10,500 shares common.

National Warehousing Co., Ltd., Montreal, Que., Canada. Canadian Charter. Manufacture medicines, and drugs. Capital 6,000 shares, no par.

Coast Mfg. Co., New York. Manufacture Toilet preparations. Capital $5,000.

Quiz, New York. Manufacture chemical preparations. Capital $30,000 pf., 600 shares common.

Dultine Laboratories, Newark, N. J. New Jersey Charter. Manufacture drugs. Capital $50,000.

United Cosmetics Co., New York. Delaware Charter. Creams, lotions, powders, soaps. Capital $3,000,000, 1,000,000 no par stock.

Kenmer Laboratories, Inc., New York. Delaware Charter. Soaps. Capital $100,000.

Nev Chemical Co., Brooklyn, N. Y. Capital $100,000.

Butler, Beans & Susie, Bloomfield, N. J. New Jersey Charter. Chemists, druggists, etc. Capital 10,000 shares common.

The world market for insecticides and disinfectants has assumed considerable importance, due in a large measure to the activities of American manufacturers and exporters, according to the United States Department of Commerce.

The 1926 exports of insecticides and disinfectants were valued at $2,721,990. Rapid progress was made in developing foreign markets during 1927, when shipments increased to $4,788,777. It is in the field of household insecticides that the American exporter is especially active. These preparations represented more than 76 per cent. of the total 1927 trade.

Cundall, Powell & Mosher, Inc., Buffalo, N. Y., manufacturers of automatic machinery, changes its name to Capem Machinery Corp.

Editor's Correspondence

Disputes Peppermint Oil Figures

Editor, DRUG MARKETS;

Referring to your article on peppermint oil appearing on page 354 of your April issue, I note you state that the 1927 crop amounted to from 750,000 to 800,000 pounds; that a normal crop is from 600,000 to 650,000 pounds; that there is at present 400,000 pounds on hand in the primary markets and that there will probably be a carry-over of 200,000 pounds when the new crop comes in.

The figures quoted are greatly at variance with those I have obtained.

If you will refer to United States Government reports from the Department of Agriculture and the Department of Commerce, you will find that the average crop in the United States is less than 450,000 pounds per annum.

During the 14 years from 1914 to 1927, both inclusive, the average production of peppermint oil in the United States was 431,000 pounds per annum.

It is true that in 1914 we produced 600,000 pounds and in 1926 nearly 600,000 pounds, but those are the only two years in the last 14 years in which we produced anything like 600,000 pounds, and in 1925 our production was down to 329,000 pounds. In 1927 according to the best estimates I have been able to obtain, we produced just a normal or average crop and not to exceed 450,000 pounds

During the calendar year 1927 we exported to foreign countries, according to the reports of the Department of Commerce, 214,532 pounds.

Commencing September 1, 1927, we have to deal with the 1927 crop, and during the six months ending February 29, 1928, we exported out of the 1927 crop a total of 125,526 pounds, and the indications are that during the crop year, i. e. from September 1, 1927, to August 31, 1928, we will export a total of 250,000 pounds, leaving only about 200,000 pounds for domestic consumption.

The figures which I have given you, you can easily verify by the reports from the Department of Commerce.

Hence it will be seen from the foregoing that there could not possibly be 400,000 pounds of peppermint oil still on hand in the primary markets, nor could there possibly be a carry-over of 200,000 pounds on August 31st, 1928.

I have been raising and marketing peppermint oil for about 15 years and naturally am interested in such items as production, consumption and export, and I might state in this connection, that during the calendar year 1927, our imports of peppermint oil from foreign countries amounted to only 397 pounds according to the reports of the Department of Commerce.

I, therefore, am led to believe that the information published by you in the April magazine is very largely incorrect, and as I know that you are desirous of giving your clients the real facts, I thought it was worthwhile to call your attention to this matter.

Chicago, April 30, 1928. F. L. SIMMONS.

New Maple Flavor

A process for manufacturing a true maple flavoring product which, when mixed with ordinary sugar syrup, will make a reconstituted table syrup, essentially the same as the commercial product, has been perfected by John W. Sale and J. B. Wilson, chemists of the Food, Drug and Insecticide Administration, it has been announced by the Department of Agriculture.

The process has been patented and has been dedicated to the public. Already one large manufacturer of flavoring products has taken steps to put the new flavor on the market, and according to Mr. Sale, the public should soon be able to purchase a genuine maple flavor for the first time.

BEEHIVE BRAND
BEESWAX

Absolutely Pure
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Sun-bleached

Stearic Acid—Red Oil
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Sun Bleached under glass from the highest quality crude yellow beeswax obtainable. Especially suitable for the manufacture of toilet preparations of quality, that will keep and not turn rancid or yellow.

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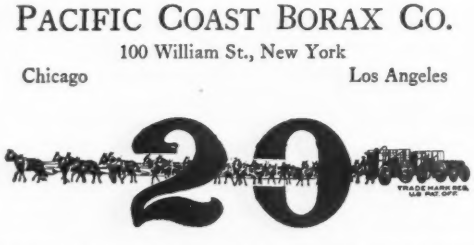


New Medicinals

(*Continued from page 416*)

and pseudosulfimidbenzoic acid (one part by weight). Iodine content is 31.6 %. Action in hypnosis is longer than other benzyl compounds and nitrites. Described by Sonnenwirth in Wien. kiln, Wochenschrift, year 1927, number 5; by Berliner in Duetsche med. Wochenschrift, year 1927, number 5; by Suckau in Fortschritte der Therapie, year 1927, number 17. Dose: one tablet, containing 0.25 or 0.5 gram, two to three times a day. Made by I. G. Farbenindustrie A. G., Frankfurt am Main, Germany.

Digistrophena — A dialysate from digitalis purp. and strophanthus Kombe. Dose: 20-30 drops two to three times a day. Described by Iselin in Schweizer med. Wochenschrift, 1927, pages 441ff. Made by F. Muehlthaler S. A., Nyon.

Dijozol — Alcoholic solution of a di-iodized salt of phenolsulphonic acid with homogeneously combined iodine. Used in undiluted condition as an iodine-yielding antiseptic in surgical operations and for disinfecting hands of surgeons, and nurses. Described by Seelinter in Deutsche med. Wochenschrift, year 1927, pages 321ff; by Huellen in Deutsche med. Wochenschrift, year 1927, pages 891ff; by Nehrkorn in Muench. med. Wochenschrift, year 1927, pages 768ff. Made by H. Trommersdorf Chemische Fabrik, Aachen, Germany.

Dolordon — Tablets containing 0.3 gram of pyramidon, 0.02 gram of dipropylbarbituric acid and 0.03 gram of caffeine. Used for headaches and neuralgia. Dose: 1-2 tablets. Described by Hartleben in Fortschritte der Therapie, year 1927, pages 511ff. Made by Oxylax Laboratorium, Halle am Saale, Germany.

Doloresum Tophiment — Contains phenylchinchonic acid, methyl salicylate, menthol, mustard oil, and turpentine oil, dissolved in volatile liniment. Used for rheumatic diseases and gouty pains. Made by Kyffhaeuser Laboratorium, Frankenhausen am K., Germany.

Ektobrom — Ten per cent. solution of sodium bromate in a 4% calorose solution. Used for eczemias and other skin diseases. Described by Nagel in Muench. med. Wochenschrift, year 1927, number 44. Alo used for after-effects of salvarsan. Described for this purpose by Reyka in Fortschritte der Medizin,

Here's How

Whenever you need machinery and equipment, containers, raw materials of any kind and want information or sources of supply—ask DRUG MARKETS. We may not be able to help you, but the chances are that somewhere in our files, our organization or among our acquaintance is just what you want. Try anyway. We're glad to help.

DRUG MARKETS

25 Spruce Street **New York**

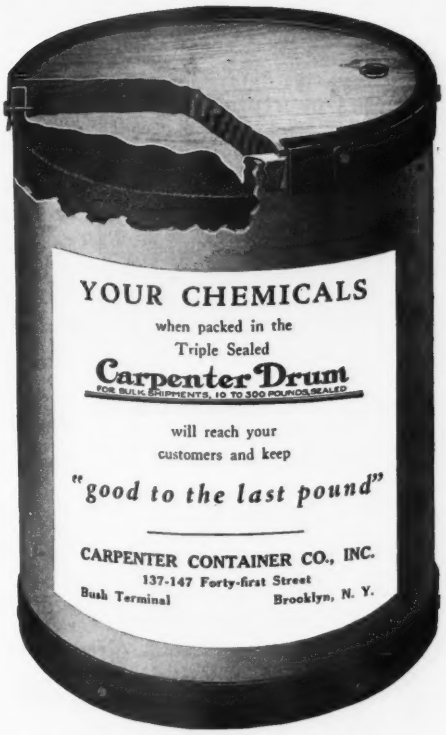
year 1927, pages 267 ff. Used in intravenous injections in quantities from 3-10 cc. Made by Chemische Fabriken Guestrow in M., Germany.

'Cuban Beeswax Imports

The total imports of Cuban animal and vegetable wax into the United States during 1926 and 1927 are shown in the following table:

	1926		1927	
	pounds	Value	Pounds	Value
Beeswax and other waxes	396,149	$156,437	442,026	$168,188
Vegetable wax	6,782	2,104	6,982	1,952

A report submitted by Vice Consuls H. W. Story and William E. Copley, Santiago de Cuba, states that exportations of beeswax from Santiago for 1927 were slightly less than those for 1926, and gives the following figure: Exports, 1926, 166,688 pounds, valued at $59,849; 1927, 150,996 pounds, valued at $53,049. Less than 10 per cent. of the above amounts consisted of the prime yellow variety so much in demand. Exporters state that prime yellow wax is becoming scarcer each year and that in a few more years it will entirely disappear. The current wax is also decreasing in quantity with the increase of new types of hives and beeswax is still considered of less importance than honey. Heretofore, beeswax was an important article of commerce from the port of Santiago, but it is now given little or no consideration. Prices for prime yellow have remained attractive throughout the year approximating $0.40 a pound; current grades fluctuated, and only the cleanest lots were accepted for delivery, much of that which is considered "very dirty" being rejected. Total exports to all countries were 528,000 pounds in 1926, valued at $170,000.



STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912

Of Drug Markets, published monthly at Pittsfield, Mass., for April 1, 1928.

State of New York, County of New York—ss.

Before me, a notary public in and for the State and county aforesaid, personally appeared Williams Haynes, who, having been duly sworn according to law, deposes and says that he is the Publisher of the Drug Markets, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Williams Haynes, 25 Spruce St., New York, N. Y.; Editor, T. R. Farrell, 25 Spruce St., New York, N. Y.; Managing Editor, none; Business Manager, F. V. Sinclair, 25 Spruce St., New York, N. Y.

2. That the owner is: (If the publication is owned by an individual his name and address, or if owned by more than one individual the name and address of each, should be given below; if the publication is owned by a corporation the name of the corporation and the names and addresses of the stockholders owning or holding one per cent. or more of the total amount of stock should be given.) Drug Markets, Inc., Williams Haynes, F. V. Sinclair, T. R. Farrell.

3. That the known bondholders, mortgagees, and other security holders owning or holding one per cent. or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is (This information is required from daily publications only.)

Williams Haynes, Publisher.

Sworn to and subscribed before me this 7th day of May 1928. Joseph Fischer (My commission expires Notary Public, Bronx Co., Clerk's No. 36, N. Y. C. C., No. 373, N. Y. Reg., No. 9287, March 1929.)

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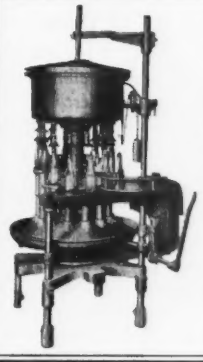

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N. Y. Quinine & Chemical Works, Inc.
C. B. Peters Co., Inc.
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Schliemann Companies, Inc.

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F. J. Stokes Machine Co.

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A. J. Bradley Mfg. Co.

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Cleveland, Ohio

Who's Who in the Drug Industries

Orville J. Cloughly, vice-pres. & general mgr., St. Louis Wholesale Drug Co., St. Louis, Mo. Born: 1878, Mitchellville, Iowa; mar: Anna J. Boehm, 16 Sept. 1904, St. Louis, Mo.; educat: 2 yrs. in Prep. Coll. no degree; 2 yrs. St. Louis Coll., Pharm. Ph. G. Entered retail drug bus. as prop. St. Louis, Mo. 18 May 1904; 4 yrs. later purchased store at 23rd & Dodier; 1 yr. later pur. another store, 25th & Bremen; 1916 pur. 4th

Charles Albert Corliss, pres. Lamont Corliss Co., Ponds Extract Co. New York City. Born: 16 Oct. 1868, Troy, N. Y.; mar: Anne Parrish, 29 Dec. 1915, Claymont, Del; educat: Phillip's Acad.Andover 1886, Williams Coll., B. A., 1890. Clubs: Metropolitan, Univ., Union League (N. Y.), Sigma Phi, The Creek, Sleepy Hollow, Golf Club and seven other Golf Clubs. Hobby: golf.

J. Harry Cox, pres. The Tilden Co., New Lebanon, New York. Born: 3 Nov. 1861, New York City; mar.: R Zipporah Wallace, 12 Apr. 1887, Newburgh, N. Y.; children: one; educat: public schools, N. Y. Coll. City N. Y. The Tilden Co., since 25 May 1880. Clubs: Wyndharsh, Lenox, Mass., Park, Pittsfield, Mass., Unity Lodge No. 9, T. & A. M., Pittsfield Country. Hobbies: golf, hunting, bridge, books.

E. MARK HOUGHTON, dir; Medical Res. and Biological Labs. Park Davis & Co., Detroit, Mich. Born: Antwerp, N. Y. 29 Apr. 1867; mar: Jennie Z. Hunt, Antwerp, N. Y. 20 Aug. 1892; children: (3) 1 son, 2 daughters; educat: Univ. Mich. Ph. C. 1893; Univ. Mich. M. D. 1894; F. A. C. P. 1921. Parke, Davis & Co., Jr. Dir., Biological Labs. 1895-1911, dir. Med. Res. & Biological Labs., 1911 to date. Special work has been to develop biological assay processes as applied to chemical pharm. and biological prods. which could not be standardized by other means. Develop and direct the production of various biological prods. such as Diphtheria, Tetanus, and other Antitoxins, Bacterial Vaccines, and various biological prods. used for prophylactic and therapeutic purposes with animals and man. Published numerous technical papers. Lecturer on Pharm. Detroit Coll. of Med., 1897-1902; Spec. lecturer Med. Dept. Univ. Mich. 1902-6. Memb: Amer. Drug. Mfgs. Assn.; Fellow Amer. Med. Assn; Amer. Pharm. Assn., Fellow Amer. Coll. Physicians; Amer. Phys. Assn.; Amer. Soc. Immunologists; Soc. Amer. Bacteriologists.; Amer. Public Health Assn. Clubs: Detroit Boat, Detroit Athletic. Hobbies: outdoor sports, general literature and history.

ROBERT HARRIS HUTCHINSON, director, professional Service Bureau, H. K. Mulford Co., Philadelphia, Pa Born: 27 Oct. 1886, Malvern, Pa.; mar: Mary A. Stout, 27 May 1916, Trenton, N. J.; children: four; educat: Lafayette Coll., A. B., 1909, Harrison Fellow in Biology, U. of P. 1912-13; M. S. U. P. 1913; spec. wk. in Protozoology, Entomology and Physical Chemistry. With H. K. Mulford Co., 1920 to date, in chg. of Library and Information Files, Editorial and publ. wk., dir., Professional Service Bureau. Bur. of Entomology U. S. D. A., 1913-19. Work on sanitary and Medical Entomology under Natl. Res. Council during War. Co-author (with Dr. F. M. Huntoon) of section on "Biological Prods," in Remington's Practice of Pharm., and of chapter on "Antibacterial Serums" in Jordan and Falk's handbook of Bacteriology. Joint-editor-Bulletin of Antivenim Inst. of Amer. Contributor to Trade Journals. Memb: Amer. Chem. Soc., Amer. Assn. Adve. Science., Soc. Med. Progress, Phila. Acad. Nat. Sciences; Ent. Soc. of Wash. Hobbies: motoring, choral society.

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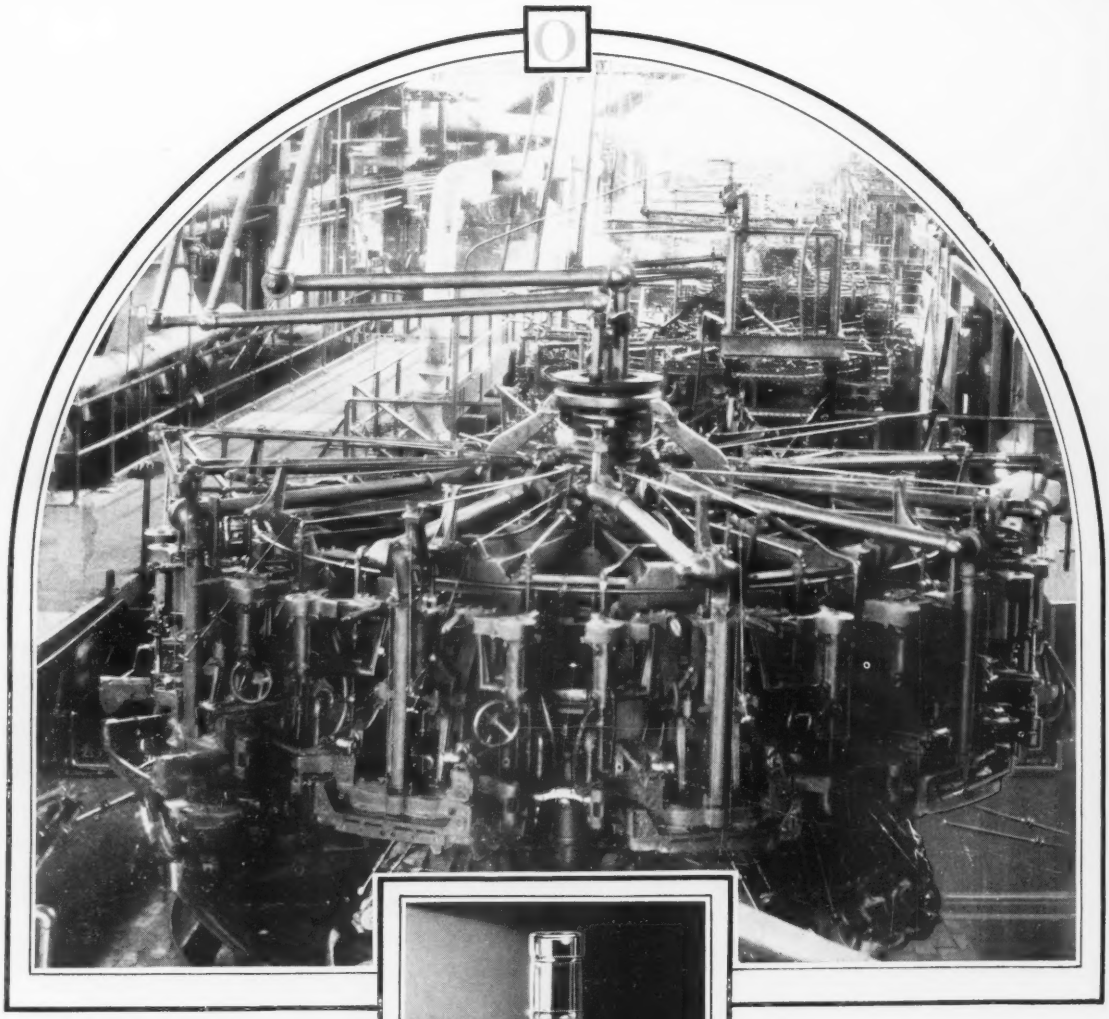

Modern Machines

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OWENS BOTTLES

Modern Bottles

EACH operation that Owens Bottles go through —from sand, to furnace, to machine, to annealing oven, to inspection, to packing — has definite significance in the process of making quality bottles. Each operation is as modern as is known to bottle science today. Each operation holds perfection as its goal. The result is Owens quality bottles — accurate — clear — brilliant—strong—long-lived. The Owens Bottle Company—Toledo.